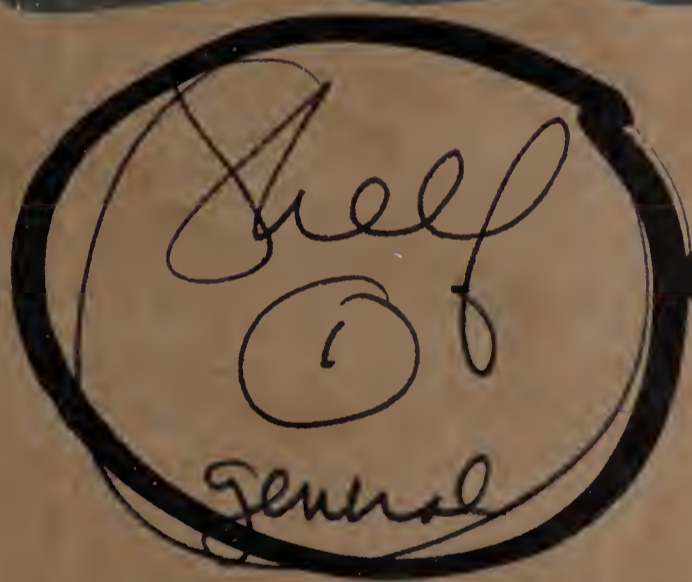


DEFENDING The DOLLAR

FED. RES. Philadelphia



1970

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DEFENDING THE DOLLAR



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FORWARD

The United States has had persistent and sometimes substantial deficits in its balance of international payments since early in the 1950's. The protracted deficits have resulted in a drain on the U. S. gold stock and caused a growing accumulation of short-term dollar assets owned by foreigners. While occasional or isolated deficits are not serious, persistent large deficits are cause for concern. They place a strain on our international monetary reserves, weaken the dollar in foreign-exchange markets, and can have serious implications for domestic economic policies.

This pamphlet is addressed to questions of widespread public concern. Why has the United States had these persistent deficits in its balance of payments? What is the mechanism for making payments in international transactions? What problems have emerged in this system and what can be done to improve it? How do we go about defending the dollar?

The pamphlet, designed for the general reader rather than the expert in international economics, was authored by Clay J. Anderson, former Economic Advisor and officer of the Federal Reserve Bank of Philadelphia and now retired. It is a complete revision of the popular booklet originally published in 1962.

We shall be pleased to make copies of the pamphlet available for educational purposes. Requests for copies should be addressed to Bank and Public Services Department, Federal Reserve Bank of Philadelphia, Philadelphia, Pennsylvania 19101.

September 1970

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Balance of Payments

A nation's balance of payments is a statement of its receipts from, and payments to other countries during a given period of time.

Spending, borrowing, lending, and investing are not confined within national boundary lines. Consumers and business firms in the United States buy goods and services from all over the world. Firms in the United States sell goods and services in other countries. We lend and invest in foreign countries; foreigners lend and invest here. We pay interest and dividends on foreign investments in this country and, in turn, receive income on funds loaned and invested abroad. We are spending large amounts for foreign travel—much more than foreign visitors spend here. Our Government makes large payments abroad; foreign governments make payments here. These illustrations are only a few of the multitude of transactions that crisscross national boundaries. Some transactions result in receipts from, others in payments to foreign countries.

In this article, we shall discuss three main topics:

1. Composition of the balance of payments;
2. Recent trends in the balance of payments of the United States;
3. Implications of the balance of payments for economic policy.

STRUCTURE AND COMPOSITION

There are millions of separate transactions between citizens, business firms, and government in the United States and their counterparts abroad during a year. A statement of the balance of payments of the United States classifies and summarizes the transactions in a way which shows the major sources of receipts and the principal types of payments. Each classification of receipts and payments represents the total of a large number of individual transactions.

It would be rare, indeed, if having totaled all receipts and all payments, the two totals should be equal. Typically, one is larger than the other. If receipts are larger than payments, the balance of payments shows a *surplus*; if payments exceed receipts, it shows a *deficit*. Total receipts

and total payments balance only if settlement items, such as transfers of gold and net changes in foreign assets and liabilities, are included.

The following simplified statement illustrates a common form and principal components of the United States balance of payments.

UNITED STATES BALANCE OF PAYMENTS*	
(Billions of dollars)	
Receipts	
Merchandise exports	\$33.6
Military sales	1.4
Transportation, travel, and other services	7.9
Income from investments abroad**	7.7
Inflow of foreign capital, net	8.6
Total receipts	\$59.2
Payments	
Merchandise imports	33.0
Military expenditures abroad	4.5
Transportation, travel, and other services	7.6
Income payments on foreign investments in the U.S.	2.9
Remittances and pensions	1.2
Outflow of private capital, net	5.2
U.S. Government grants and capital outflow, net	4.0
Errors and unrecorded transactions	0.6
Total payments	\$59.0
Surplus (+) or deficit (—)	
Liquidity basis	+0.2
Official settlements basis	+1.6

Note: Detail may not add to totals because of rounding.
 *Data are for 1968.
 **Mostly from private investments.

Receipts. Our primary source of foreign receipts is sale of United States goods abroad, which contributes roughly three-fifths of the total. Industrial supplies and materials, manufactured goods, and agricultural products account for a substantial part of our exports. Transportation and other services rendered foreigners, including foreign travel in the United States, contribute about one-seventh of total foreign earnings. Another source of receipts of about equal importance is income from foreign investments, mostly private, such as interest, dividends, and profits. New foreign investments

in the United States also produce an inflow of funds. This source of foreign receipts is more volatile than the others, but usually contributes less than either services or investment income.

Payments. Payments abroad as well as receipts arise from a multitude of individual transactions. The largest category of payments is for merchandise imported from abroad. Interest and dividend payments on foreign investments in this country, transportation and other services supplied by foreigners, and expenditures of Americans traveling abroad are other sizable

classes of payments.

United States Government operations are a much more important source of payments than receipts. Military expenditures abroad and Government grants and aid to foreign countries have been substantial through most of the post-war period. A net outflow of private investments, direct and portfolio, has been another significant source of payments, especially in the past decade.

Surplus or deficit. The difference between total receipts and total payments is the surplus or deficit: a *surplus* when receipts *exceed* payments; a *deficit* when receipts *fall short of* payments.

In the statement illustrated, there is a surplus of \$200 million on the liquidity basis and \$1.6 billion on the "official settlements" basis. The difference in the amount of surplus reflects divergent views on how certain items should be shown.

PROBLEMS OF MEASUREMENT

Several problems arise in presenting the balance of payments. For one thing, complete data are not available. Some transactions must be estimated on the basis of fragmentary information. Many small transactions are not recorded because of lack of data. Consequently, an item such as "errors and unrecorded transactions" is necessary in order that total receipts and total payments will balance. In the statement illustrated above, "errors and unrecorded transactions" amounted to \$600 million. The consensus of students of balance-of-payments statistics seems to be that a large part of unrecorded transactions consists of capital flows, especially short-term movements.

Significant conceptual problems arise in formulating a statement of the balance of pay-

ments. One which has received considerable attention recently concerns which items should be segregated "below the line" as balancing or settlement items.

A truly neutral concept would dictate listing *all* receipts and *all* payments during a given period, without any segregation of settlement items. In a statement of this type, there would be no surplus or deficit in the usual sense. Total receipts and total payments would be equal (except for errors and omissions), and no items or categories would be segregated as to unusual significance.

The common practice, however, is to segregate some items, "dropping them below the line" as settlement or balancing transactions. The size of the surplus or deficit from ordinary "above the line" receipts and payments depends on what is included as financing or settlement items. The statement illustrated above shows the surplus derived from the two concepts most commonly used in the United States: the "liquidity" and the "official settlements" basis.

The liquidity concept, developed and used by the Department of Commerce, centers on the role of the United States as financial leader in the free world and its unique commitment to buy or sell gold from or to foreign official institutions at a price of \$35 an ounce. The impact of international transactions on the liquidity position of the United States and its ability to honor its commitment is considered of unusual significance. More specifically, the effect on liquidity position is determined by net changes in total liquid liabilities (public and private) to foreigners and net changes in official holdings of international monetary reserves.¹ Hence, these changes are regarded as "below the line"

¹ Liquid liabilities are defined as liabilities with a maturity of one year or less.

or balancing items. The surplus so derived is \$200 million.

The “official settlements” basis of measuring the surplus or deficit focuses on the position of the monetary authority—its ability to meet its foreign liabilities and to maintain a stable rate for its currency in foreign-exchange markets. Thus, the significant aspect of a nation’s balance of payments is the impact on the monetary authority’s liabilities to foreign official institutions and its holdings of reserve assets to meet those liabilities. For the United States, this means changes in liabilities of the Treasury and Federal Reserve to foreign “official” institutions and in Federal Reserve-Treasury holdings of international reserve assets (gold, convertible foreign currencies, United States unused gold tranche in the IMF and SDR’s). Using this concept, the

statement given above would show a surplus of \$1.6 billion.

Where the line is drawn between ordinary and balancing items has an important bearing on the size of the surplus or deficit. Items listed above the line produce the imbalance; those listed below are visualized as settling the surplus or deficit thereby created. The principal differences between the liquidity and official settlements methods are twofold: (1) the liquidity basis excludes long-term liabilities to foreigners as a balancing item and includes all short-term liabilities, both public and private; (2) the official settlements method excludes all private liabilities to foreigners but includes all liabilities—short- and long-term—to foreign official institutions. These differences for the balance of payments given above are tabulated below.

Surplus accounted for on: (Billions of dollars)			
Liquidity basis			\$0.2
Change in <i>liquid</i> liabilities to foreigners			
Private	+3.8		
Official agencies	-3.1		
Net increase in liquid liabilities		+0.7	
Increase in official reserve assets		+0.9	
Surplus			\$0.2*
*Net increase in official reserve assets of \$0.9 billion, less net increase in liquid liabilities of \$0.7 billion.			
Official settlements basis			\$1.6
Change in liabilities to foreign official agencies			
Liquid liabilities	-3.1		
Nonliquid liabilities	+2.4		
Net change		-0.7	
Increase in official reserves		+0.9	
Surplus			\$1.6*
*Net increase in official reserve assets of \$0.9 billion, plus net decrease in official liabilities of \$0.7 billion.			

This summary table shows why the surplus was \$1.4 billion larger in 1968 on the official settlements basis than on the liquidity basis. The

primary reason was the large borrowings of United States commercial banks in the Euro-dollar market. Short-term liabilities of commer-

cial banks to foreigners rose \$3.4 billion and other private short-term liabilities, over \$400 million for a total of \$3.8 billion. Intermediate and long-term liabilities to foreign official institutions increased \$2.3 billion. The \$3.8 billion increase in private short-term liabilities abroad, omitted from the official settlements basis, more than offset the \$2.4 billion rise in nonliquid liabilities omitted in the liquidity method. Private short-term liabilities rose \$1.4 billion more than nonliquid liabilities to foreigners, thereby reducing the \$1.6 billion official settlements surplus to \$0.2 billion on the liquidity basis.

There are sound reasons for both of these concepts of measuring a balance-of-payments surplus or deficit. In the present international monetary system, the United States permits only foreign official institutions to use their dollars to buy gold from the Treasury; private foreign holders cannot do so. From this point of view, it is logical to regard the international liquidity position of the United States as being determined by its holdings of international monetary reserves² in relation to its liabilities to foreign official institutions. The potential drain that private foreign owners of dollars may exert indirectly is disregarded.

The liquidity view regards all short-term liabilities to foreigners as potential claims, directly and indirectly, on United States international monetary reserves. The United States dollar is widely used as a means of international payment. In complying with the IMF agreement, most foreign free-world countries maintain their currencies within the agreed limits of par in terms of the United States dollar. If the dollar becomes too plentiful in foreign-exchange markets, foreign currencies will tend to rise to

the ceiling as private holders of dollars offer them for sale. To keep their currencies from breaking through the ceiling, foreign central banks sell their currencies for dollars—i.e., purchase dollars.³ As foreign central banks acquire dollars from private holders, they may use them to buy gold from the U.S. Treasury. Private short-term liabilities to foreigners are, via their central bank, a potential claim on our gold and other reserve assets. Hence, advocates of the liquidity view contend these liabilities should be included in measuring the international liquidity position of the United States.

Advocates of the official settlements concept, however, counter that a large part of these private foreign-owned dollars and short-term dollar assets represent working balances of commercial banks and other private participants in foreign-exchange markets. Widespread use of the dollar in international payments requires such participants to hold dollar balances for their day-to-day operations. It is highly unlikely, therefore, that the bulk of private short-term liabilities to foreigners will ever become a drain on United States international monetary reserves.

RECENT TRENDS

Current and prospective developments in our balance of payments may be better understood if viewed in the perspective of major trends in the postwar period. Some of the highlights are summarized below.

Declining trade surplus. Historically, the United States has sold more goods abroad than it has purchased from foreign countries. Merchandise exports have exceeded imports every year in the present century except for a very small deficit in 1935.

² Gold, convertible foreign currencies, unused gold tranche in the IMF, and SDR's.

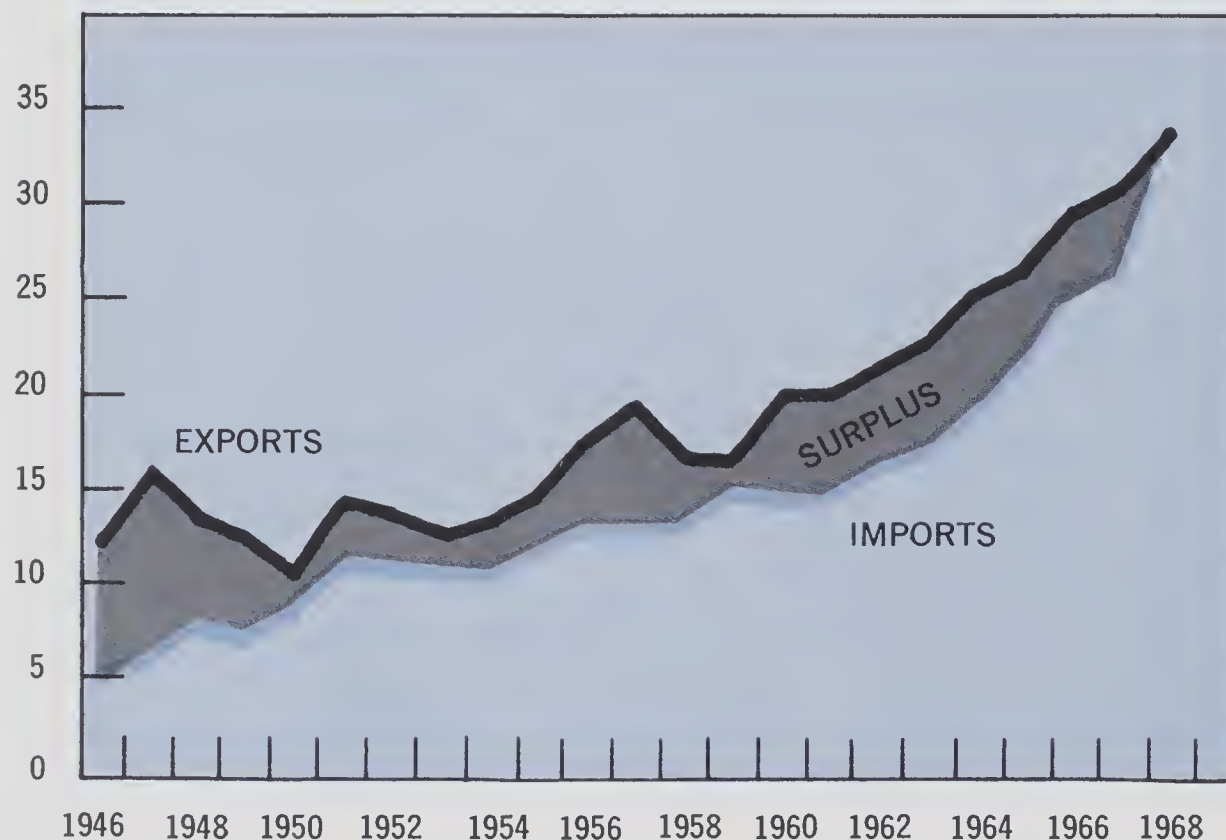
³ These operations are explained more fully in the two articles to follow.

The trade surplus was especially large in the early postwar years, reaching a peak of \$10 billion in 1947. Wartime destruction seriously impaired productive capacity in major foreign industrial countries. Foreign demand, inflated by reconstruction needs, was directed mainly at the United States, the principal source of supply. Large United States grants for reconstruction

and recovery enlarged the purchasing power of foreign countries and underwrote the demand for United States exports. Meanwhile, United States imports were relatively small: intense domestic demand abroad and scant supplies of goods in foreign industrial countries held down exports by foreign countries. These conditions gave rise to the much-discussed “dollar shortage.”

BALANCE ON MERCHANDISE

Billions Of Dollars



Source: U.S. Department of Commerce.

Our trade surplus declined as reconstruction and recovery in the major industrial countries enabled them to supply more of their own demands. United States exports declined and

remained at a relatively low level until the mid-1950's, and imports showed a general upward trend. The trade surplus remained at a relatively low level in the 1950's except for the sharp rise

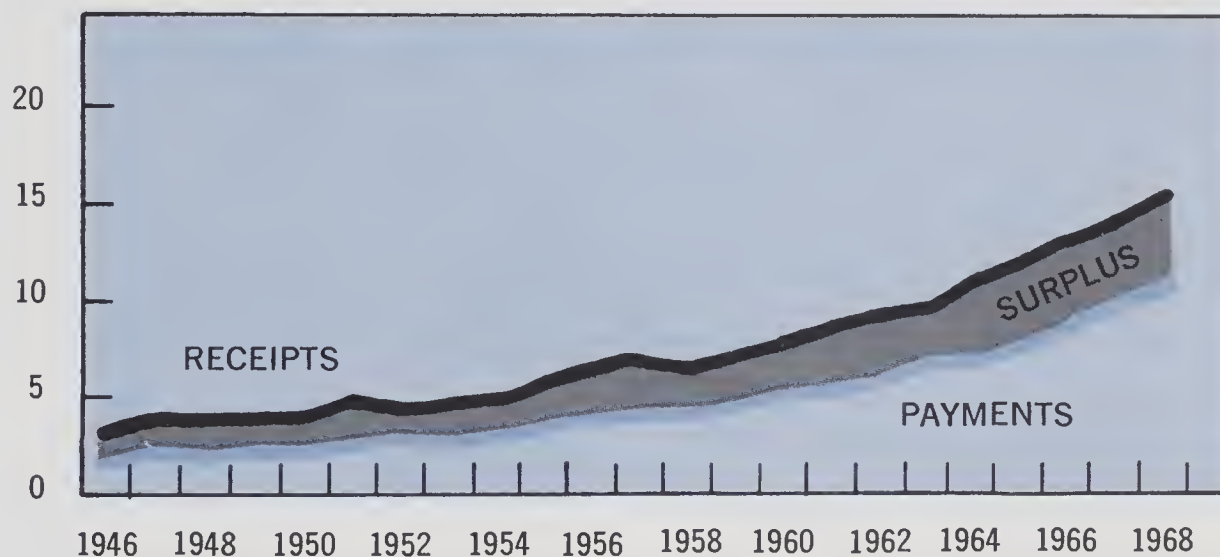
in 1956 and 1957. This increase reflected in part the export stimulus arising from the Middle East crisis and closing of the Suez Canal.

The decade of the 1960's ushered in several years of relatively large export surpluses. Rapid rates of economic growth in major foreign countries and relative price stability in the United States created a strong demand for United States

goods. Exports rose more rapidly than imports until 1965. Then the situation began to shift. Soaring demand, approximately full employment, and rising prices in the United States induced a strong rise in imports, and the trade surplus dwindled. It hit a postwar low in 1968, and there was a small deficit in the first half of 1969.

BALANCE ON SERVICES*

Billions Of Dollars



*Consists mainly of transportation, travel, and receipts or payments on investments.

Source: U.S. Department of Commerce.

Surplus on services grows. Transportation, travel, investments, and other services produce a flow of foreign receipts and payments. The United States has maintained a surplus in this category every year in the postwar period. The surplus on services remained fairly stable until the 1960's, ranging from a low of \$1.4 billion to a high of \$2.5 billion. In the 1960's, the surplus

more than doubled, rising from \$2 billion in 1960 to \$5 billion in 1968.

The major contributor to the growing surplus was income from private investments abroad. The excess of receipts from investments abroad over payments on foreign investments in the United States soared to almost \$5 billion in 1968. Service payments to foreigners have risen

Balance on Capital Flows* (Billions of dollars)				
Year	Net outflow U.S. capital		Net inflow foreign capital**	Surplus (+) or deficit (-)
	Govt.	Private		
1946	5.3	0.4	-0.6	-6.3
1947	6.1	1.0	-0.4	-7.5
1948	4.9	0.9	-0.4	-6.2
1949	5.6	0.6	0.0	-6.2
1950	3.6	1.3	0.2	-4.7
1951	3.2	1.0	0.5	-3.7
1952	2.4	1.2	0.1	-3.5
1953	2.1	0.4	0.1	-2.4
1954	1.6	1.6	0.2	-3.0
1955	2.2	1.3	0.3	-3.2
1956	2.4	3.1	0.6	-4.9
1957	2.6	3.6	0.5	-5.7
1958	2.6	2.9	0.2	-5.3
1959	2.0	2.4	0.7	-3.7
1960	2.8	3.9	0.4	-6.3
1961	2.8	4.2	0.7	-6.3
1962	3.0	3.4	1.0	-5.4
1963	3.6	4.5	0.7	-7.4
1964	3.6	6.6	0.7	-9.5
1965	3.4	3.8	0.3	-6.9
1966	3.4	4.3	2.5	-5.2
1967	4.2	5.7	3.4	-6.5
1968	4.0	5.2	8.6	-0.6

*Includes short-term capital.

**Includes certain special Government transactions.

Source: Survey of Current Business, June 1969, pp. 26-27.

steadily, but at a slower pace than receipts. Travel is our main deficit item in the service category. In the past three years, United States tourists spent on the average \$1.3 billion more annually in foreign countries than foreign travelers spent in the United States.

Military expenditures abroad. As leader of the free world, the United States has incurred large expenditures in maintaining troops and military bases in foreign countries. Military expenditures abroad have been a substantial deficit item for the past 15 years. These outlays reached \$2 billion in 1952, passed \$3 billion in 1957 and, because of the hostilities in South Vietnam, soared to over \$4 billion annually in 1967 and 1968.

Deficit on capital account. Private firms, individuals, and the Government have loaned and invested more in foreign countries every year since World War II than foreigners have loaned and invested in the United States. The deficit on capital account ranged from a high of \$9.5 billion in 1964 to a low of less than \$1 billion in 1968.

In the early postwar years, Government grants and loans for reconstruction in war-devastated countries dominated our capital flows. The net outflow on Government account averaged over \$5 billion annually from 1946 to 1949. There was a substantial decline in the early 1950's.

The outflow of private capital was at a very low level until the mid-1950's. Restoration of

convertibility of the major currencies in the late 1950's and relaxation of Government restraints on capital movements set the stage for enlarged flows of private capital abroad. The net outflow began to rise in the mid-1950's and averaged nearly \$5 billion yearly during the period 1960 to 1967.

The net outflow of Government capital remained at a relatively low level in the latter part of the 1950's, but military and economic aid to developing countries boosted the figure to \$4 billion in 1967 and 1968.

There was a net outflow of foreign capital in the latter part of the 1940's, as foreigners liquidated investments to pay for United States goods. A net inflow, which emerged in 1950, remained at a low level until 1966. The sharp rise beginning in that year, which approached \$9 billion in 1968, reflected both temporary and more permanent forces. Periodic doubts about some major foreign currencies, such as the French franc and the pound sterling, induced an outflow of funds into safer currencies, including the United States dollar. Inflationary pressures, exceptionally high interest rates, and the tight-money policy in the United States, especially in the latter part of 1968, sucked in a large flow of funds from abroad. Large commercial banks turned to the Euro-dollar market to replace their loss of time certificates of deposit and to augment funds available to meet strong customer loan demand. A buoyant stock market probably also attracted some foreign funds.

More permanent factors in the rise in foreign portfolio investments in the United States are the increase abroad in United States-controlled or -oriented mutual funds, a rising volume of foreign savings being invested in securities instead of being hoarded as money, and a broad securities market in the United States which

enhances the liquidity of portfolio securities held abroad.

Basic structural shifts? A substantial surplus on goods and services and a relatively large deficit in capital flows (Government and private) have characterized the United States balance of payments during most of the postwar period. The trade surplus largely financed Government grants and loans and net private investments abroad. The modest deficits in most of the early 1950's helped redistribute the large volume of international monetary reserves accumulated by the United States in the war and early postwar years.

The relatively large deficits which began in the late 1950's reflected mainly a rising net outflow of capital and since the mid-1960's, a dwindling trade surplus. An important question is whether the shifts which have been occurring in the United States balance of payments reflect only temporary forces or the emergence of more basic structural changes.

Gross capital flows have been increasing relative to the total volume of merchandise trade. The large net outflow of private capital in the 1960's was stimulated in part by rapid economic growth and improved market opportunities in major industrial countries of Western Europe. In the United States, a slow rate of economic growth in the first part of the sixties, low interest rates, and an ample supply of credit also stimulated loans and investments abroad. Government controls and voluntary restraint programs have restricted the outflow in recent years.

The recent decline in the deficit in capital flows reflects important temporary forces. Government controls and voluntary credit restraint programs have limited private loans and invest-

ments abroad. A rapid rate of economic growth, high interest rates, and a strong demand for credit in the second part of the decade produced attractive investment opportunities at home. These conditions tended to reduce the outflow of private capital and, in turn, offered a strong inducement for foreigners to make loans and investments in the United States. The large increase in the inflow of foreign capital was the principal reason for the drastic drop in our deficit on capital account in 1968.

But more enduring forces also appear to be reducing our net capital outflow. The large volume of private investment abroad produced a return flow of interest and profits. Income from foreign investments almost trebled in the past decade and totaled nearly \$7 billion in 1968. Income, saving, and the supply of funds seeking investment have been rising at a rapid pace in some major industrial countries abroad. Our highly developed and broad securities markets together with growing solicitation by mutual funds and other financial institutions are contributing to an enlarged flow of foreign funds into our securities. Also, the rapid growth rates in several Western European countries relative to the United States which induced a large volume of direct investments by United States corporations seem to be subsiding somewhat. Apparently, there are underlying forces tending to swell the inflow of foreign capital and diminish the volume of direct investments abroad. If so, our persistently large deficit on capital account until 1968 may show a downward trend.

Longer run forces also may underlie the recent deterioration in our trade surplus. The marked decline in our export surplus since 1965 was undoubtedly the result mainly of temporary conditions in the United States—strong infla-

tionary pressures which lifted United States prices relative to those in major foreign countries and work stoppages in some of our main industries which encouraged imports. From 1965 to 1968, imports rose over 50 per cent, compared with an increase of less than 30 per cent for exports.

There are indications, however, that longer run forces may be altering our trade position vis-a-vis industrial countries abroad. Since 1948, the total volume of free-world trade has about quadrupled. The United States proportion of the total has declined slightly while that of the industrial countries of Europe has risen substantially. Reconstruction following the war modernized the industrial facilities of several West European countries, thereby improving their competitive position. Large direct investments by United States corporations in order to better penetrate the Common Market in Europe have shifted some production abroad, thus tending to reduce exports. It may be that forces such as these will diminish the relative importance of merchandise trade in our balance of payments and reduce our customary trade surplus.

IMPLICATIONS FOR POLICY

International transactions are relatively less important to the United States economy than to the economies of most other major countries. For example, the United States exports only about one-eighteenth of its total output of goods and services as compared to over one-fifth for the United Kingdom, one-fourth for West Germany, and almost one-half for the Netherlands. The impact of the balance of payments on the economy of the United States, however, is often much greater than such data might indicate.

Domestic effects of international transactions

have many ramifications.⁴ Our concern here is with a much more limited aspect—the impact on our reserve position and implications for monetary and economic policies.

In international transactions, as in domestic, we can spend more than we receive only by going into debt, or by giving up something, such as gold, that foreign creditors are willing to accept in payment. The initial effect of our deficit mainly is to increase bank deposits in the United States owned by foreigners. Deposits in excess of minimum working-balance needs are frequently invested in highly liquid earning assets, such as U.S. Treasury bills, other short-term securities, and commercial paper. Thus, when foreigners accept dollars in payment of deficits, our liabilities to foreigners increase, and they accumulate deposits and other short-term dollar assets in the United States.

In 1969, foreign holdings of short-term dollar assets rose above \$40 billion. The sharp rise in 1969 reflected in part borrowing by United States banks from their foreign branches, but the principal cause of the increase over the years has been the deficits in the United States balance of payments.

What determines whether our deficits are settled in dollars or in gold? The choice rests with our foreign creditors. A substantial part of our short-term liabilities to foreigners is to

official institutions—central banks and governments—and to international institutions such as the International Monetary Fund. Widespread use of the dollar as a medium of international payments, ability of foreign official institutions to convert dollars into gold for legitimate monetary purposes, and confidence that the United States will maintain the value of the dollar are important reasons why foreigners are willing to hold dollars. Many foreign central banks hold a part or all of their monetary reserves in dollars; others hold practically all their reserves in gold. When the latter acquire dollars, a loss of gold is almost automatic.

Private institutions, which hold the major part of foreign-owned, short-term dollar assets, need dollar working balances in conducting international transactions. Willingness to hold an excess above a minimum working balance depends on their confidence in the future value of the dollar and on the interest rate they can earn on short-term investments compared with rates available on similar investments in other countries with stable currencies. With convertibility of the major currencies, interest-rate differentials tend to generate a flow of short-term funds from international money centers with lower to those with higher short-term rates. Ordinarily, official institutions and international organizations do not shift balances from one center to another to take advantage of interest-rate differentials.

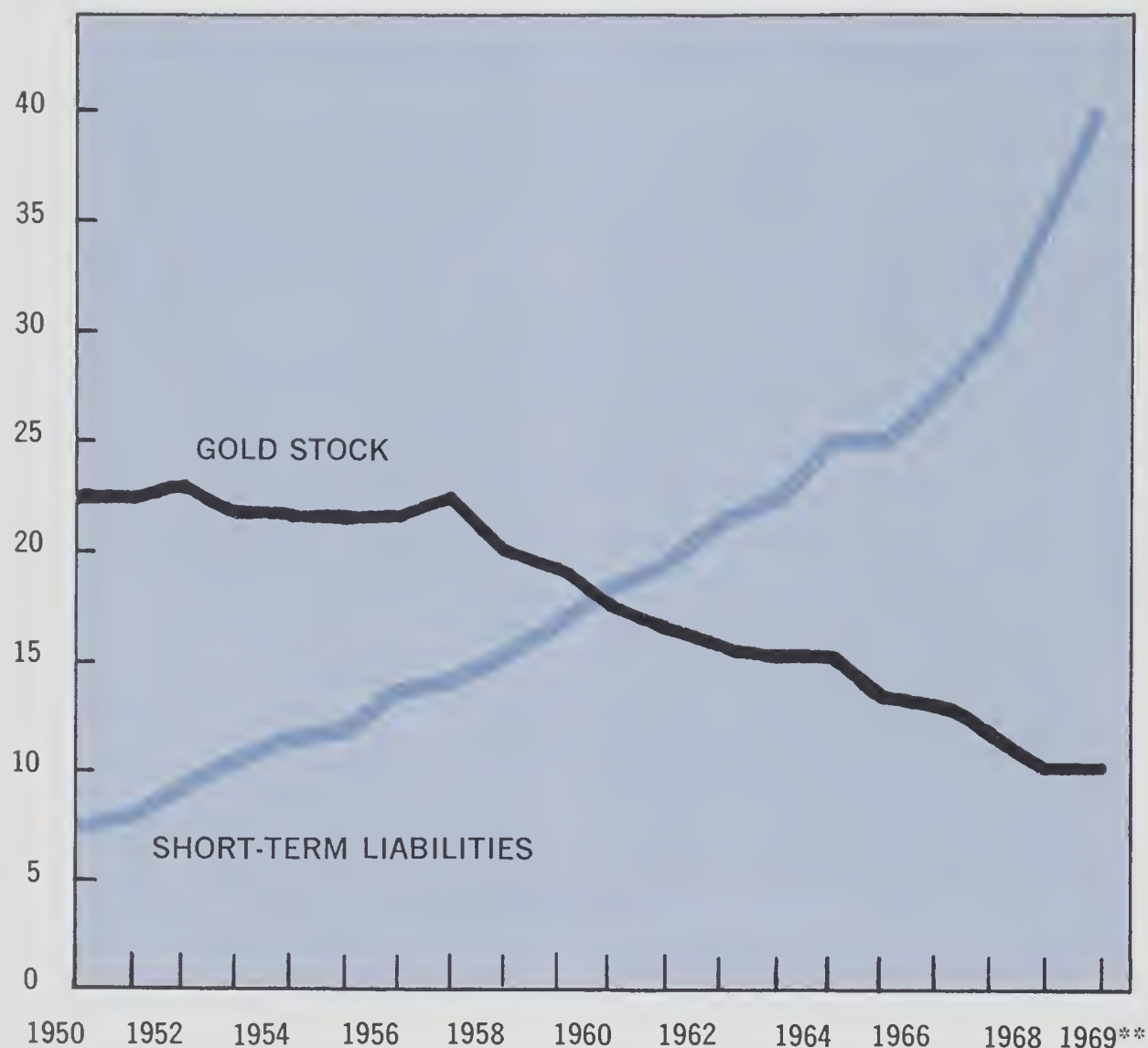
One might well ask, why so much fuss over the balance of payments—it is just a collection of statistics. What difference does it make whether receipts and payments balance? The answer: a persistent deficit or surplus has far-reaching economic effects.

The persistent deficit in the United States balance of payments resulted in a substantial

⁴To illustrate, exports increase output, employment, and profits of many domestic producers. Imports provide some goods, such as certain tropical products, that we cannot produce; they supply some materials and finished goods more cheaply than can be produced here. Cheaper raw materials may enhance the profits of some manufacturers; lower-priced finished goods may restrict the profits of others. Both exports and imports tend to stimulate innovation—by domestic exporters in order better to penetrate foreign markets and by domestic producers threatened by an inflow of foreign products. In general, a free flow of goods and capital among countries encourages specialization, more efficient production, and a higher standard of living.

GOLD STOCK AND SHORT-TERM LIABILITIES TO FOREIGNERS*

Billions Of Dollars



*Reported by banks in the United States.

**October for liabilities and November for gold stock.

Source: Board of Governors of the Federal Reserve System

drain on our gold stock, absorbed member-bank reserves, and caused much of the growing accumulation of short-term dollar assets owned by foreigners. Excessive holdings of dollars tend to

undermine confidence in the dollar and create a further strain on our monetary reserves. Only our large gold stock and the willingness of foreigners to hold large quantities of dollars en-

abled the deficit to continue for such a long period without disastrous results. Even so, the deficit had a significant influence on monetary policy and led the Government to take actions to reduce the deficit and defend the dollar in foreign-exchange markets.⁵

Large balance-of-payments deficits complicated pursuance of effective monetary policies in the early 1960's. Economic slack and a slow rate of growth called for easy money and other economic policies designed to stimulate recovery and economic growth. But the easy-money policy and low interest rates needed to stimulate recovery and growth also encouraged an outflow of capital, especially short-term funds. This capital outflow tended to enlarge the balance-of-payments deficit. The deficit interfered with the

most effective use of monetary policy to achieve domestic economic goals.

Occasional deficits are not serious; however, persistent, large deficits are cause for considerable concern. Large deficits put a substantial flow of dollars at the disposal of foreigners, weaken the dollar in foreign-exchange markets, and result in a drain on our international monetary reserves. The tendency is to undermine the dominant position of the dollar in international finance and the role of the United States as leader of the free world. Adverse effects of our persistent and substantial deficits are an important reason why it is essential that inflation be brought under control. Halting the rise in U.S. prices relative to prices in major foreign countries is a prerequisite to restoring our normal trade surplus and improving our balance-of-payments position.

⁵ The latter will be dealt with in a later article.

Foreign-Exchange and Euro-Dollar Markets

If a single currency were used in all international transactions, effecting payment would be as simple as in domestic trade and finance. Receipts from abroad would enlarge deposits denominated in the currency; payments abroad would reduce them.

The problem is not so simple, however, when a number of national currencies are involved. An American firm exporting automobiles to France wants to be paid in dollars; the French importer, however, does business in francs. An English importer of American goods sells them for sterling but needs dollars to pay the United States exporter. An American importer of French goods sells for dollars but needs francs to pay the French exporter. In a large volume of international transactions, receipts and payments involve a currency which the participant does not use domestically. Effecting payment requires exchanging one currency for another.

Purchases and sales of currencies of the major trading nations total hundreds of millions of dollars every business day. Markets in which foreign currencies are bought and sold are commonly referred to as foreign-exchange markets.

This article deals with the foreign-exchange market in the United States, factors influencing foreign-exchange rates, and a related but different type of market—the Euro-dollar market.

FOREIGN-EXCHANGE MARKET

A foreign-exchange market has the principal features of any market: buyers and sellers, facilities for bringing the two together, and stock-in-trade, that is, things which are actually bought and sold.¹

¹ For a more complete analysis of the foreign-exchange market in the United States, see Alan R. Holmes and Francis H. Schott, "The New York Foreign-Exchange Market," a booklet published by the Federal Reserve Bank of New York.

Institutional Structure. A foreign-exchange market is not an organized market such as a stock or commodity exchange. There is no single marketplace where buy and sell orders are executed; there are no meeting places where buyers and sellers assemble to arrange transactions. Instead, foreign-exchange transactions are consummated by telephone and, in the case of overseas transactions, mainly by cable and mail. For simplicity of exposition, we can break down the market structure into several main segments.

First are the dealers, mainly commercial banks, who conduct transactions with business firms and individuals desiring to buy or sell bills of exchange denominated in a foreign currency. A few specialized dealers limit their activities mainly to foreign bank notes. But transactions for any sizable amount are ordinarily in terms of bank deposits. Consequently, customers wanting to buy or sell foreign exchange usually go to their own commercial bank. Customers selling a bill of exchange are paid by credits to their deposit accounts; purchasers of foreign exchange make payment by checks on their deposit accounts.

Banks buying these foreign bills acquire instruments payable abroad in a foreign currency. They build up foreign currency balances abroad. The banks can draw on these balances to sell foreign exchange to their customers.

Most commercial banks do not want to maintain foreign currency deposits abroad, which they must do if they are to operate directly in the foreign-exchange market. They prefer to handle such transactions through a large correspondent which has a foreign-exchange department and maintains deposit balances abroad. Thus, the bulk of the transactions arranged by commercial banks in various financial centers is funneled into the primary market in New York.

Only a small number of banks, mostly in New York, maintain deposits abroad in the principal foreign currencies. Several branches and agencies of foreign banks in New York City are also active participants in the foreign-exchange market. The bulk of the foreign-exchange business, however, is accounted for by about a dozen large New York commercial banks.

A second segment of the market is the foreign-exchange broker. As already noted, purchases of foreign exchange by banks dealing directly in the market build up their foreign currency balances abroad; sales of foreign exchange draw them down. Banks build up balances abroad when purchases exceed sales and reduce balances when purchases fall short of sales. Banks dealing in foreign exchange want to maintain working balances in the principal currencies sufficient for day-to-day operations; however, because of the risk of rate fluctuations, they try to avoid balances in excess of operating needs. Frequent adjustments in foreign-exchange positions are therefore necessary.

An important medium for adjusting foreign-exchange positions is the inter-bank market in New York. For example, at the end of the day, some banks might have a larger position in sterling than they want; others might have a shortage. Instead of dealing directly to adjust their positions, banks use the services of foreign-exchange brokers. Brokers maintain close contact with the foreign-exchange departments of commercial banks in order to be able to put banks desiring to sell in touch with those wanting to buy a particular currency. For each transaction he arranges, the broker receives a small commission, paid by the seller. Banks prefer dealing through a broker because of convenience and time saved, and because brokers will not reveal names of banks wanting to sell or buy

until a transaction is arranged. In a highly competitive market, there may be advantages in maintaining secrecy as to a participant's position in foreign currencies.

A third segment of the market is transactions with foreign banks. Banks cannot always fully adjust their positions in the New York inter-bank market. Sometimes total purchases in the New York market may exceed total sales of certain foreign currencies or vice versa. In that event, practically all of the participating banks may have excess balances or shortages at the same time. If sterling positions are deficient, New York banks may turn to their counterparts in London to buy sterling. Likewise, London banks may be short of dollars and, therefore, be glad to exchange sterling for dollars. Foreign-exchange positions are thus adjusted primarily in an inter-bank market—via transactions with other domestic banks and with banks abroad.

The foreign-exchange market may also be classified in terms of the foreign currencies traded, that is, markets for sterling, Canadian dollar, mark, and Swiss franc. The volume of activity in a currency depends on demand for it and supply available for sale.

The volume of activity in sterling is largest among the markets for individual currencies in New York. The broad market in sterling reflects a substantial volume of trade, service, and financial transactions with the United Kingdom, and use of sterling in transactions with a number of other countries, especially those in the sterling area. Next in size, perhaps, is the market in the Canadian dollar. Trade, travel, and financial activities between the United States and Canada create substantial demand for and supplies of the Canadian dollar. There are also sizable markets in New York for the German mark and Swiss franc.

Less active markets exist in a number of other foreign currencies, such as the French franc, Dutch guilder, Italian lira, and Japanese yen. Inasmuch as the large commercial banks in New York maintain deposit balances in many foreign countries, and many foreign banks, in turn, maintain dollar balances in the United States, it is possible to buy or sell practically any foreign currency.

Stock-in-Trade. What is actually bought and sold in a foreign-exchange market? The bulk of transactions is in bank deposits denominated in foreign currencies; that is, the transaction results in the transfer of a specified amount from the deposit balance of the seller to that of the buyer. For example, an importer in New York desiring to make payment in London goes to his bank and buys a certain amount of sterling; the New York bank authorizes its correspondent in London to transfer the amount from its deposit account to that of the company or bank specified by the importer. The transaction is effected by the transfer of sterling from one deposit account to another in one or two banks in London.

Deposit transfers arising from foreign-exchange transactions are usually authorized by cable because payment is effected more promptly. Some transfers, however, are authorized by mail. Use of air mail has drastically reduced the time formerly required in effecting payment by sea mail.

Perhaps our New York importer prefers to send his payment directly to the English exporter. If so, he buys a sterling draft from his New York bank for the agreed amount and sends it to the exporter. The draft is an order by the New York bank, drawn on its deposit in a London bank, to transfer the specified amount from its account to the account of the exporter or his bank. In either case, payment is effected

by a deposit transfer from the New York bank's balance in the London bank to the exporter's bank.

Drafts, or bills of exchange as they are commonly called, are still used in arranging payment for exports. A United States exporter selling goods to an importer in London may, as part of the agreement, draw a draft on the importer's bank for the amount of the sale. The importer, of course, would first have to arrange for his bank to pay or accept the draft. The exporter draws the draft, according to the terms of the agreement, and sells it to his bank which credits his deposit with the dollar proceeds. The bank then sends the draft directly, or through its correspondent, to the bank on which it is drawn for payment. The final result is an increase in the exporter's dollar deposit in his bank for the proceeds of the draft and a corresponding increase in the purchasing bank's sterling deposits abroad. The importer's balance in his bank would be reduced similarly.

A draft or bill of exchange may be payable on sight or at a specified future date. If the latter, it must be "accepted" by the bank or business firm on which it is drawn—acceptance represents agreement to pay at the time specified. Time bills, if accepted by a bank, are known as bankers' acceptances; if accepted by business firms, as commercial or trade acceptances. Dividend checks and interest coupons payable in foreign currencies are similar instruments traded in the foreign-exchange market.

Foreign paper currency and coin are also bought and sold, but the volume of trading is small. Travelers going abroad are an important source of demand; travelers returning from abroad are a source of supply.

Buyers and Sellers. Buyers and sellers of foreign exchange in the United States consist

of a large number of business firms and individuals engaging in a great variety of transactions with their counterparts in foreign countries. A large part of our exports and imports is invoiced and paid in dollars; hence, many foreign-exchange transactions involved in our foreign trade bypass the United States market. The exchange of foreign currencies for dollars is made mostly in foreign-exchange markets abroad rather than in the United States.

The supply of foreign exchange offered for sale in the United States market comes from several sources. Payment for some of our exports is still effected by means of drafts drawn on foreign banks and payable in foreign currencies, as already stated. Such drafts are sold to United States banks or other foreign-exchange dealers. Drafts payable in foreign currencies are sometimes drawn in payment of securities sold abroad and by United States companies remitting interest, dividends, and profits from overseas branches and subsidiaries. Foreign tourists and visitors in the United States may cash travelers' checks payable in foreign currencies or draw drafts in foreign currencies under letters of credit. Speculators may sell foreign exchange purchased previously, and, of course, United States banks which maintain balances in foreign currencies abroad also sell foreign exchange to meet demands of their customers.

Basically, the demand for foreign exchange comes from those who need to make payment abroad. American importers buy drafts to pay for goods invoiced in foreign currencies. This is still a common method of payment in certain commodities, such as rubber, jute, and tin, which are often invoiced in sterling, and imports of Swiss watches, usually invoiced in Swiss francs. Other sources of demand in the United States for foreign exchange are investors desir-

ing to pay for securities purchased abroad; United States companies remitting interest, dividends, and profits on funds borrowed from abroad; American tourists traveling abroad; agencies of foreign banks desiring to return funds previously transferred here; and speculators who buy foreign currencies expecting to sell them later at a higher price.

The mechanics of making payment should not obscure the fact that international transactions result in the exchange of one currency for another. United States payments abroad supply dollars to foreigners—they result in the conversion of dollars into foreign currencies or transfer the ownership of dollars to foreigners. Receipts from abroad (foreign payments to the United States) result in an increase in foreign balances owned by Americans or a reduction of dollar deposits owned by foreigners. Therefore, a net deficit in the United States balance of payments tends to build up deposits owned by foreigners in United States banks; a net surplus tends to build up our deposits abroad in foreign currencies.

FOREIGN-EXCHANGE RATES

Foreign-exchange rates are prices—prices of foreign currencies expressed in a country's own money. The following quotations (in dollars) are selling prices for cable transfers; i.e., "spot rates," for delivery in one or two days. Buying prices are slightly lower. The difference between buying and selling price is the dealer's income for handling the transaction. No commission is charged. The par value of the foreign currency in terms of the United States dollar is given in parenthesis.

Practically all nations belong to the International Monetary Fund and, as members, agree to maintain the market rate of exchange within 1 per cent above and 1 per cent below par.² Market rates of exchange fluctuate within this narrow band in accordance with changing supply-demand relationships. Rate fluctuations during a day are typically very narrow—only a small fraction of a cent. Increased demand for sterling, for example, might nudge the market

² Some countries maintain market rates for their currencies within a narrower band.

FRIDAY, APRIL 10, 1970		
Selling prices for bank transfers in the U. S. for payment abroad, as quoted at 4 p.m. (in dollars):		
Country and Par Value	Friday	Previous Day
Canada (Dollar, .925)	.9320	.9321
Great Britain (Pound, 2.40)	2.4062	2.4057
30-Day Futures	2.4052	2.4049
90-Day Futures	2.4029	2.4029
Australia (Dollar)	1.1230	1.1227
New Zealand (Dollar)	1.1260	1.1257
South Africa (Rand)	1.4035	1.4035
Austria (Schilling, .0384615)	.0388	.0388
Belgium (Franc, .02)	.020125	.020125
Source: <i>The Wall Street Journal</i> , April 13, 1970.		

price from \$2.3985 to \$2.399; an increased supply might lower it to \$2.398. More persistent shifts in demand-supply forces, however, may lift the market rate to the "ceiling" or lower it to the "floor," that is, the support levels above and below par value.

The balance of payments reflects the basic supply-demand forces influencing the exchange rate for a nation's currency. As explained in the previous article, the United States' persistent balance-of-payments deficit put a growing supply of dollars at the disposal of foreign holders. The supply tended to exceed demand for dollars in foreign-exchange markets abroad. Dollars tended to be cheap in terms of foreign currencies; alternatively, the price of foreign currencies tended to be high in New York.³

A balance-of-payments surplus would have the opposite effects. An excess of receipts over payments would create a strong demand abroad for dollars (or a large supply of foreign currencies in New York). The price of the dollar in foreign-exchange markets would tend to rise; prices of foreign currencies in New York would fall.

Seasonal and temporary factors also influence day-to-day foreign-exchange rate fluctuations. A seasonal rise in exports or other foreign receipts may weaken market rates of certain foreign currencies; a seasonal rise in imports and other payments abroad may strengthen them.

Anticipation of future market trends may touch off speculative purchases or sales. Speculative purchases may become massive, if, for example, a foreign country is expected to raise the value of its currency. A recent case was the

German mark. Expectations that a country may devalue its currency in the near future may lead to a wave of speculative sales of the currency.

THE FORWARD MARKET

Most major foreign currencies can be bought and sold for future as well as immediate (spot) delivery. Future transactions in foreign currencies are commonly referred to as forward exchange.

Forward-exchange markets are similar in important respects to futures markets for commodities. In forward purchases and sales, the date of delivery and price are agreed upon when the contract is made. For example, in foreign currencies for which there is an active forward market, purchases and sales for delivery in thirty days on up to six months are common. Longer terms of one year or more are sometimes negotiated, but dealers enter into such contracts only when they can hedge their position.

Option contracts which provide some leeway as to date of delivery and payment are frequently negotiated. A United States exporter, for example, may not be able to determine in advance the exact date his goods will be shipped and, therefore, when he will have his foreign draft for sale. Importers also are often unable to determine the day on which they will need to make payment abroad. Because of such uncertainties, foreign-exchange dealers enter into forward contracts giving the seller or buyer the option of offering or taking delivery on his future contract at any time within a 10-day period, such as the first 10 days of the month. Rates on option contracts are likely to be a shade above or below comparable futures maturing on a fixed date.

³ The impact on our gold reserve is explained in the next article.

Uses of Forward Market. A forward-exchange market enables traders and others participating in international transactions to hedge against the risk of fluctuations in exchange rates. By means of forward sales or purchases, they can transfer all or most of the exchange-rate risk to someone else. To illustrate, let's assume an importer contracts to buy goods from an English exporter for 1,000 pounds sterling, which at a current rate of \$2.40 would yield \$2,400; if, however, the price of sterling has gone up by the time the goods arrive and payment is to be made, the cost will be more than the importer anticipated. He could protect himself against the exchange-rate risk when he contracts to buy the goods by purchasing 1,000 pounds sterling for delivery at the time he expects to make payment.

An exporter who has priced his goods in a foreign currency to yield a certain number of dollars may likewise find his dollar proceeds reduced because of a drop in the price of the foreign currency. He can protect himself by selling the foreign currency for future delivery or, in the terminology of the market, by selling forward exchange.

Commercial banks and other foreign-exchange dealers use the forward market to hedge their positions in foreign currencies. If a bank buys 100,000 pounds sterling in the spot market, it can cover its position by selling sterling forward. If the price of sterling rises, and spot and forward rates move together, the gain on holdings of 100,000 pounds sterling would offset the loss on the forward transaction. If, on the other hand, the price declines, the gain on the forward transaction would offset a loss on the sterling holdings acquired at a higher price. Dealers also use the spot market to hedge their positions in forward contracts.

United States purchasers of foreign securities may cover the exchange risk involved through

the forward market. If interest rates on short-term investments are higher abroad, there is an inducement to invest in short-term foreign assets to take advantage of the higher yield. A United States investor buying 90-day British Treasury bills would have to buy spot sterling to pay for them. At maturity 90 days hence, he would receive the face value of his bills in sterling. If in the meantime the price of sterling has declined, he would suffer a loss when converting his sterling into dollars. The investor could protect himself against loss by selling sterling for 90 days future delivery at the time he purchases British Treasury bills. If 90-day sterling is selling at a discount, the difference between the forward and spot rates represents the cost of "covering" his exchange risk.

Role of Speculator. A speculator is one who engages in foreign-exchange transactions hoping to profit from exchange-rate fluctuations. Traders, dealers, and other participants in the foreign-exchange market can hedge against the risk of rate fluctuation only because someone else—the speculator—is willing to take it.

Speculators can operate in the spot market. If a rise in the price of a foreign currency is anticipated in the near future, they could buy the currency and hold it for resale later; if, however, the price is expected to decline, they could sell the currency short—i.e., borrow the currency for delivery. To terminate the latter transaction, the short seller would have to go into the market later and buy the currency—hopefully at a lower price—to repay the amount borrowed. Buying and holding a currency to resell later or borrowing a currency to sell it short involves costs. In the former case, there is an interest cost or loss of interest that could otherwise be earned on the funds tied up in

foreign currency holdings; in the latter, there are costs involved in borrowing the currency for spot delivery.

Such costs can be avoided largely by operating in the forward market. Speculators who are bullish on a certain currency can buy it for future delivery and payment; bears can sell for future delivery and payment. Inasmuch as forward transactions are negotiated only with those considered creditworthy, margins are usually not required.

The line of demarcation between a speculator and one who enters the foreign-exchange market to settle a trade or financial transaction is not always clear-cut. Exporters and other prospective recipients of a foreign currency may not hedge by selling for future delivery if there is general expectation that the price of the currency will rise. They may wait until the foreign currency receipts arrive, hoping to sell at a higher price. Likewise, importers and others having to make future payments abroad may make a forward purchase if they expect the price of the foreign currency to rise or delay the purchase if the price of the currency is expected to fall.

It is sometimes alleged that informed speculation broadens a market and tends to cushion price or rate changes. Speculation in foreign exchange, however, has been disruptive and notably destabilizing at times. Expectation that a currency may be devalued or revalued upward may touch off a massive volume of speculative activity which puts strong downward or upward pressure on the exchange rate.

Relation Between Spot and Forward Rates. Spot and forward-exchange rates are closely linked. Expectations and interest-rate differentials are two of the more significant ties. Fluctuations in

spot rates are limited in accordance with agreements of member nations with the International Monetary Fund; however, such agreements do not cover forward rates.

Expectations about foreign-exchange rates influence both spot and forward rates. If, for example, sterling is expected to depreciate, prospective recipients would sell it forward; speculators also would sell it forward. Banks and other dealers, in buying these forward sales contracts, build up their forward positions in sterling. They may sell spot sterling to hedge their forward positions, thus putting downward pressure on the spot rate. Anticipations of a rising rate would tend to have the opposite effects.

Interest-rate differentials among international financial centers is another linkage between spot and forward rates. For instance, unless the spread between spot and forward rates for a foreign currency is such that the cost of covering the exchange risk is about equal to the difference in comparable interest rates in the United States and the foreign country, there is an inducement to shift funds to take advantage of the higher rates.

An outflow of funds to take advantage of a higher net return on British bills would tend to eliminate the profit opportunity. As already indicated, a United States purchaser of 90-day British bills would buy spot sterling to pay for them and sell 90-day forward sterling to cover his exchange risk. The resulting increased demand for spot delivery and increased supply of forward sterling would widen the spread between the two rates and increase the cost of hedging an investment in British Treasury bills. The outflow of short-term funds would tend to raise interest rates here and lower them in England. Thus, interest-arbitrage transactions tend to narrow the differential in interest rates

and widen the spread between spot and forward rates.

Interest-arbitrage transactions operate toward, but do not necessarily maintain, equality between interest-rate differentials and cost of covering exchange risk. Other factors influence the relationship between spot and forward rates. Some investors buy higher yielding foreign securities without covering the exchange risk. Speculators buy and sell foreign exchange, hoping to profit from rate fluctuations. Many investors in the United States, either because of legal restrictions or unfamiliarity with foreign-exchange practices, are unable or unwilling to engage in interest-arbitrage transactions. Hence, the volume of arbitrage transactions is often insufficient to maintain the spread between spot and forward rates at "interest-rate parity."

EURO-DOLLAR MARKET

A large part of United States exports and a smaller but substantial part of imports are invoiced in and paid in dollars. Dollars are also widely used in payment of international transactions which do not involve United States participants. Many foreign-exchange transactions involving other currencies go through the dollar; that is, payment from Germany to France being effected by converting marks to dollars and dollars to francs. The dollar is extensively used as a "vehicle" currency, and transactions in dollars constitute the major segment of most foreign-exchange markets abroad.

Foreign-exchange operations of most foreign central banks and other official institutions to maintain the rate on their currency within agreed limits are executed in dollars. They pay out dollars for their own currency when the rate falls to the support level; they take in dollars for their own currency when the rate approaches the ceiling.

Because of the widespread use of the dollar as a means of international payment and as a vehicle currency, commercial banks, other foreign-exchange dealers, and central banks need dollar working balances in order to conduct their daily foreign-exchange operations. Foreign-owned demand and time deposits in United States commercial banks and liquid dollar assets, such as United States Treasury bills and commercial paper, total more than \$40 billion.⁴ The bulk of these foreign-owned dollars and dollar assets is held by commercial banks and central banks abroad.

General acceptability and extensive use of the dollar in settling international transactions have induced foreign official institutions to hold a part of their international monetary reserves in dollars. One advantage of dollars over gold is that a portion of the dollar reserve can be held in the form of a highly liquid earning asset, such as a time deposit in a United States bank or Treasury bills. Foreign central bank and official institutions' holdings of dollar deposits and liquid dollar assets exceed \$12 billion. The United States dollar ranks next to gold as the second largest component of free world monetary reserves and constitutes over one-third of the total.

Structure of the Euro-dollar Market. Euro-dollars are deposits, denominated and payable in dollars, in a foreign bank. They are the deposit liability of a foreign bank, not the liability of a United States commercial bank to pay deposits held by foreigners. Perhaps the distinctive aspects of Euro-dollars will be clearer if one examines various ways in which they may originate.

Foreigners receiving payment in dollars—

⁴ This includes about \$12 billion of claims on U. S. banks held by their foreign branches.

checks, drafts, bills of exchange payable in dollars—may deposit the proceeds, denominated in dollars, in their bank instead of converting the dollars into their own currency. Foreigners with deposits in United States banks may transfer them to a foreign bank. Holders of foreign currencies may sell them for dollars and deposit the dollar proceeds in a foreign bank. Americans may transfer dollars to a foreign bank. These sources of dollar deposits in foreign banks may be thought of as primary deposits—holders of dollars deposit them in a foreign bank. New Euro-dollars may be created when foreign banks make dollar loans against their dollar deposits, as explained below.

The market in Euro-dollars, while not centralized, is an organized market. The term refers to a large number of banks, mostly in London and Western Europe, that accept demand and time deposits in dollars and extend credit to borrowers in dollars. Maturities of deposits other than demand range from overnight, seven and 30 days, up to one year. The average maturity, however, is probably less than three months. London is the center of the market, and banks in the United Kingdom hold about one-half the Euro-dollar total. Foreign branches of United States commercial banks are a dominant factor in the Euro-dollar market. Banks in Western Europe are other important holders of Euro-dollars. Total Euro-dollars outstanding at the end of 1969 was estimated at \$46 billion.⁵

The Euro-dollar market differs from a foreign-exchange market in which dollars are bought and sold for other currencies. It is really a bank credit market conducted in dollars by foreign banks. These banks accept deposits payable in dollars; loans to borrowers are made in dollars.

⁵ Bank for International Settlements, Fortieth Annual Report, June 8, 1970.

To be in a position to pay depositors dollars on demand or at an agreed time, such banks typically hold a reserve of deposits in United States banks.⁶ Just as in domestic banks, it is unlikely that all depositors will demand payment at once; hence dollar “reserves” in United States banks will be less than the total volume of Euro-dollar deposits. Again, as in the case of domestic banks, loans result in additional deposits, Euro-dollar deposits, being made available to borrowers. To the extent experience reveals that reserves held against deposits can be less than 100 per cent, Euro-dollar banks (as a group) in making loans may enlarge the total volume of Euro-dollar deposits. The proportion of reserves held, and maximum multiple expansion of credit and deposits depend on leakages as Euro-dollars flow from one bank to another. Euro-dollars are not commonly used as a means of payment in domestic transactions. For this and other reasons, leakage here is likely to be much greater than for commercial banks in the United States.

Recent Development and Growth. The Russians initiated in the 1950's what was perhaps the forerunner of the present Euro-dollar market. They wanted to keep dollar balances, but preferred to hold them where they could not be impounded by the United States Government. Consequently, dollar deposits were maintained in some West European banks.

Two developments established the conditions essential for development of a sizable Euro-dollar market. Growing use of the dollar in international transactions and as a vehicle currency created a broad demand for United States dollars. Restoration of currency convertibility

⁶ An individual bank might consider Euro-dollar deposits in another bank as reserve; however, ultimate ability of the banks as a group to pay dollars derives from deposits held in United States banks.

and relaxation or removal of exchange restrictions made possible the free flow of funds necessary in conducting a market.

The Euro-dollar market has grown substantially in the past decade, especially in the latter part of the 1960's. Several factors contributed to its growth.

United States Government regulations stimulated the flow of dollars into the Euro-dollar market. Payment of interest on demand deposits in U.S. commercial banks is prohibited, and there are ceilings on rates that can be paid on various classes of time deposits. Euro-dollar deposits often earn more than comparable deposits in United States banks. There was also a shortage of attractive money-market instruments in West European countries suitable for investment. Relatively high interest rates and convenient maturities attracted dollars from a variety of sources. Recurrent uncertainty about the future value of currencies, such as sterling and the French franc, induced conversion of foreign currencies into Euro-dollars. Finally, growth itself made the market better-known and more attractive as an outlet for short-term funds.

Rising demand was an essential condition for growth. An expanding volume of international trade and financial transactions enlarged the need for short-term financing in a currency generally acceptable in international transactions. The Euro-dollar market often served as a supplement to domestic sources of credit.

Recent developments have expanded both supply of, and demand for Euro-dollars. Rates on Euro-dollar deposits have generally been higher than rates on alternative short-term investments. More stringent controls on United States direct investments abroad induced a substantial rise in bond flotations in foreign

markets by United States corporations. The proceeds often were placed temporarily in Euro-dollars. Apparently, substantial amounts of foreign funds were diverted from purchases of United States securities, especially in 1969, to the Euro-dollar market.

Temporary forces also have augmented demand for Euro-dollars. Our voluntary credit restraint program diverted some credit demand from United States banks to the Euro-dollar market, particularly to branches of United States banks. Both foreign and United States commercial banks at times turn to the Euro-dollar market to adjust liquidity and reserve positions, and for supplementary funds to meet customer credit demands. Demand of large United States commercial banks soared in the latter part of 1968 and in 1969. Pressure on reserves, losses of negotiable CD's, and exceptionally strong credit demand induced these banks to borrow heavily in the Euro-dollar market.

The Euro-dollar market has become a widely used international short-term money market. The market performs internationally the basic functions that a domestic money market performs within a country—it provides a mechanism for shifting funds from banks, corporations, and others with temporary surpluses to those with temporary shortages.

Euro-Bonds. Euro-bonds refer to issues denominated in a single currency and sold simultaneously in several countries by a multi-national underwriting syndicate. Most issues are denominated in United States dollars (interest and principal payable in dollars), the most widely accepted currency internationally; however, occasionally an issue is denominated in sterling, German marks, or another major currency.

Euro-bonds emerged in 1963, largely as a re-

sult of restrictions imposed on foreign borrowing in the United States. Initially, use was limited to a few European public and private institutions that formerly had borrowed in the New York market. However, use of Euro-bonds has grown rapidly in the past few years. More borrowers in more countries have turned to the market, and funds are mobilized from an ever-widening area.

Euro-bonds have the advantages of avoiding restrictions imposed in many countries on foreign borrowing in a local currency, and of giving borrowers access to a much larger pool of funds. European countries now serve as a channel for funds drawn from most parts of the free world. Intensified restrictions on foreign direct investments of United States corporations in 1968 provided a further stimulus. United States corporations turned to Euro-bonds and recently have become the dominant borrowers in that market. A substantial part of the proceeds of such issues was placed temporarily in Euro-dollars.

Exceptionally high rates on Euro-dollars have recently diverted funds from Euro-bonds. In addition, several European countries have imposed restrictions on domestic bank participation in Euro-bond issues in order to limit the resulting outflow of capital.

IMPLICATIONS FOR POLICY

Foreign-exchange rates, if established solely by market forces, might fluctuate widely at times. Speculation, in particular, could be a serious destabilizing force. Volatile exchange rates create uncertainty and tend to inhibit international transactions. Stable exchange rates is one of the key provisions of the International Monetary Fund. But the policy question of fixed versus flexible exchange rates has many ramifications.

They are explored in the next article in this series which deals with the international monetary system.

The Euro-dollar market has two principal policy implications: its effect on our balance of payments and its significance for monetary policy.

The United States balance of payments for 1968 affords a good illustration of how the Euro-dollar market may affect a surplus or deficit. The reduction in liabilities to foreign official institutions reflected indirectly a substantial flow of funds to the Euro-dollar market. High Euro-dollar rates attracted foreign funds, resulting in conversion of foreign currencies into dollars. Also, the high rates probably induced some private holders to put their dollars in the Euro-dollar market instead of turning them in to the central bank. Large borrowing of Euro-dollars by United States commercial banks was a contributing factor; the tendency was to push up Euro-dollar rates, thereby making conversion of foreign currencies into dollars more profitable.

Conversion of foreign currencies into dollars put downward pressure on such currencies in foreign-exchange markets. As exchange rates approached the floor, central banks sold dollars for their own currencies. High rates, by discouraging private holders from turning in dollars to the central bank, also tended to reduce United States liabilities to foreign official institutions. The net effect was to increase our balance-of-payments surplus on the official settlements basis.

Withdrawal of funds from the Euro-dollar market would tend to have the opposite effect. Conversion of dollars into foreign currencies in sufficient volume would lift exchange rates on these currencies toward the ceiling. Support operations by foreign central banks would in-

volve converting their own currencies into dollars. Private holders might turn more of their dollars in to the central bank. The additional dollars acquired would increase United States liabilities to foreign official institutions, thereby tending to reduce an official settlements surplus or enlarge a deficit.

The impact on the liquidity basis surplus or deficit is not so clear-cut. Placing foreign-owned dollar deposits in United States banks into the Euro-dollar market transfers ownership from one foreign holder to another; total liquid liabilities to foreigners do not change. Borrowing by United States commercial banks from their branches abroad is likely to result in only a shift in the form of the liability. A transfer of domestically owned deposits to the Euro-dollar market, however, would increase short-term liabilities to foreigners, thereby tending to reduce a surplus or enlarge a deficit on the liquidity basis. Inasmuch as private liabilities to foreigners are omitted, such transactions would have no effect on the official settlements surplus or deficit.

Euro-dollar transactions could affect the liquidity basis surplus or deficit by altering the maturity composition of our liabilities to foreigners. For example, if foreign-owned long-term United States securities were sold and the proceeds placed in the Euro-dollar market, short-term liabilities would be increased. This rise in short-term liabilities to foreigners would tend to decrease the surplus (increase the deficit) on a liquidity basis.

Recently, the Euro-dollar market has stirred considerable controversy over possible effects on monetary policy. Intensified pressure on reserve positions sent commercial banks scrambling for new sources of funds. More attractive market rates resulted in a marked decline in negoti-

able CD's. Large banks, especially those with branches abroad, turned to the Euro-dollar market for additional funds. In analyzing the implications for monetary policy, two types of effects should be distinguished.

Of greatest significance is the impact on total reserves and the capability of the Federal Reserve to affect total bank credit and the money supply. The direct effect of Euro-dollar operations on total reserves available to United States commercial banks appears to be minor. Recalling the various ways that Euro-dollar deposits may come into existence, we find none alters the total volume of our bank reserves. Placing dollars in the Euro-dollar market, whether from foreign dollar receipts or conversion of foreign currencies into dollars, results in a transfer of ownership with no change in total deposits and total reserves of United States commercial banks. Funds shifted by United States residents from domestic to Euro-dollar banks increase foreign-owned deposits but have no effect on total United States commercial bank deposits and reserves.

One type of transaction, however, may alter total required reserves. Borrowing of United States banks from their branches abroad shifts the form of liability from a deposit. Reserves are required against deposits, and, until recently, the effect was to reduce required reserves of the borrowing banks. The Board of Governors recently imposed a reserve requirement against bank borrowings from foreign branches and banks in excess of the amount outstanding in a certain base period. This new reserve requirement reduces the impact of borrowing from foreign branches on the volume of required reserves.

Even though Euro-dollar operations have little effect on the total reserve position of

United States banks, what about the impact on individual banks? Do Euro-dollars enable a few large banks with foreign branches to escape restraint imposed by a tight-money policy? At present, Euro-dollars are a practical source of funds for only a relatively small number of United States banks. Borrowing from foreign branches does augment somewhat funds available for loans; however, these funds are likely to be more expensive than domestic sources, and the newly imposed reserve requirement further reduces the advantage of such borrowing. Secondary effects may reduce still further the net advantages of borrowing Euro-dollars. As already noted, strong demand from United States banks was a significant factor in lifting Euro-dollar rates to unusually high levels. These high rates attracted funds from a variety of sources, including residents of the United States. Inasmuch as these Americans would likely be customers of the larger banks, borrowing Euro-dollars may to some extent only recapture at a high cost deposits siphoned away by unusually

attractive Euro-dollar rates.

The impact of the Euro-dollar market on United States commercial banks, as a system and individually, has numerous ramifications. Nevertheless, analysis indicates two general conclusions are valid. One, the effect on total available reserves, if any, is very small—far too small to impair Federal Reserve capability to alter total reserves and thereby monetary aggregates linked to the reserve base. At the maximum, Euro-dollar operations might complicate calculating day-to-day estimates of reserve positions, thereby making it slightly more difficult to use open market operations to achieve very short-term objectives. The second conclusion is that access to the Euro-dollar market apparently does not seriously distort distribution of the effects of monetary restraint among banks. The few large banks with foreign branches do have direct access to this source of funds, but the net benefit derived may easily be exaggerated. The advantages appear to be no greater than their size affords in tapping domestic sources of funds.

International Monetary System: Problems and Proposals for Reform

“Sterling devalued;” “Franc devalued;” “Massive flow of funds into West Germany;” “Mark revalued upward.” Phrases of this nature have frequently hit the headlines. They reflect the problems which arise periodically in the operation of the international monetary system—a system which embraces policies and measures concerning foreign-exchange rates, international monetary reserves, and the adjustment process for correcting disequilibria in the balance of payments. These features—exchange rates, reserves, and the adjustment process—are closely interlinked.

Foreign-exchange rates reflect supply and demand forces generated by a vast number of international transactions. Balance-of-payments deficits and surpluses arise from temporary and more fundamental imbalances between payments and receipts. A deficit for the United States, for example, tends to push market demand for foreign currencies above supply and builds up large holdings of dollars abroad. Foreign-exchange dealers in New York would likely respond to strong demand by raising their quotas for foreign currencies as their balances abroad dwindled. Dealers abroad with too many dollars would offer them at a lower rate. In short, a deficit puts downward pressure on the value of nation’s currency, and if the deficit continues, it results in a loss of reserves. The loss of reserves depends not only on the size of the deficit, but also on how much the rate for the currency declines in foreign-exchange markets and how promptly and effectively the adjustment process functions.

The primary focus of this article is on the present international monetary system and how it operates. The article deals with four principal questions:

1. What are the main features of the present system?
2. What problems have emerged in the system's operation?
3. What actions have been taken to improve the system?
4. What are the main proposals for reform?

OUR PRESENT SYSTEM

The international monetary system has undergone marked changes in the past few decades. To gain perspective, it is helpful to note some of these changes.

The Great Depression of the early 1930's brought the final collapse of the international gold standard which had been relied on to maintain stable exchange rates. The depression was also accompanied by financial crises, rumors of economic collapse, and massive flights from one currency after another. In the chaotic environment that developed, currencies were devalued, and many countries established exchange controls as a means of keeping foreign payments and foreign receipts in balance.

In World War II, exchange controls and trade restrictions were tightened. Wartime damage and destruction of productive capacity in many of the major industrial countries made the United States, after the war, the principal source of supply in world markets. An urgent need for United States' goods for reconstruction and development, combined with seriously impaired capacity and ability of major foreign countries to produce for export, led to a widespread shortage of dollars. To conserve limited supplies of dollars, many countries imposed special controls against imports from the United States.

The widely heralded "dollar shortage" began to vanish as foreign industrial countries restored productive capacity and regained competitive

strength in world markets. Restrictions on goods and capital flows were gradually relaxed, and convertibility of major currencies was restored. Reduction in the unusually large United States trade surplus which characterized the latter part of the 1940's, large Government economic aid and military payments abroad, and a growing outflow of private capital ushered in a long era of balance-of-payments deficits for the United States. For over a decade, the United States has been plagued by substantial deficits and, at times, more dollars in the hands of foreigners than they desired to hold. Nonetheless, postwar conditions did forge a unique role for the dollar in the international payments system, and this role continues largely unimpaired, despite our persistent deficits.

The International Monetary Fund established at the Bretton Woods Conference in 1944 reflected the chaotic conditions in the '30's and the tight harness of controls applied in World War II. Important aims were relaxation of trade and exchange controls as rapidly as feasible and fashioning an international monetary mechanism that would foster a relatively free flow of goods, services, and capital among countries. The framework established is still the foundation of the present international monetary system. This article is concerned with only the principal features of the system.

Stable Exchange Rates. The International Monetary Fund incorporates the philosophy that stable foreign-exchange rates are an essential feature of a good international monetary system. This view is apparent from the provisions relating to exchange rates.

Member nations, in consultation with the IMF, declared a par value for their currencies. They also agreed to maintain the market value

within a narrow band of 1 per cent above or below the declared par value.

The United States declared the par value of the dollar in terms of gold—\$35 an ounce. The Treasury stands ready to buy gold from, or sell gold to, foreign official institutions at that price. Other member nations declared the par value of their currencies either in terms of gold or the dollar. Most of them maintain the market rate within the agreed limits by taking in or paying out dollars in exchange for their own currency.

In case of fundamental payments imbalance, a nation may, in consultation with IMF officials, change the par value of its currency in order to restore equilibrium.¹ This provision recognized that a persistent, basic imbalance in a nation's balance of payments may make it impossible, or at least inexpedient, for a country to maintain the existing par value of its currency. If, for example, a substantial deficit persists because an income-cost-price structure is considerably above those in other countries, restoring balance by devaluing the currency is preferable to imposing the drastic deflationary measures required to reduce the cost-price structure to a competitive level.

International Liquidity. Pegging exchange rates diverts most of the impact of a balance-of-payment deficit to reserves. If the downward pressure exerted by a deficit on a nation's currency in foreign-exchange markets continues for long, operations to maintain the market rate within agreed limits reduces the country's monetary reserves. The length of time the country can support its currency, in the absence of cor-

rective action to restore balance, depends on its reserve holdings and the amount of reserves it can borrow. A deficit in the United States balance of payments builds up dollar balances abroad and tends to depreciate the dollar in terms of foreign currencies. Support operations by foreign central banks build up their holdings of dollars, some of which they may feel excessive and, therefore, may be used to buy gold from the United States Treasury. This is the mechanism whereby our deficits eventually lead to a loss of gold.

The close link between maintaining pegged foreign-exchange rates and reserves directed attention towards international liquidity. How can we determine whether international monetary reserves are adequate? There is no simple answer to this question, but a major consideration is the role reserves are expected to play.

The philosophy underlying the present international monetary system is that reserve adequacy for an individual country is related to two types of needs. One requirement of adequacy is sufficient reserves to cover seasonal and other temporary balance-of-payments deficits. Certainly a country should not be compelled to take restrictive actions to protect its reserves against these short-run imbalances. A second generally accepted principle is that reserves should be sufficient to permit a reasonable amount of time for a country with a chronic deficit to utilize sound methods to restore equilibrium. Measures which operate on internal demand, prices, and costs work slowly. Direct controls operate more quickly but are contrary to the general goal of promoting free flows of goods and capital among nations. Normally, reserves should be sufficient for a nation to correct an imbalance without resorting to restrictive actions which unduly interfere with

¹ So long as the cumulative changes, up or down, are less than 10 per cent of the initial par value, a nation does not have to consult the IMF when altering the value of its currency.

international transactions.

One of the main functions of the International Monetary Fund is to contribute to international liquidity by providing a pool of currency reserves available to member nations in case of need. Borrowings against the “gold tranche”—equivalent to one-fourth of a member’s quota—are readily available for short and intermediate (up to five years) terms. Borrowings in excess of this amount are available only on such conditions as the Executive Board of the IMF may see fit to impose. Usually an IMF agreement to lend is dependent upon the country taking some action to correct its balance-of-payments problem.

Adequacy of international monetary reserves refers mostly to the amount of total reserves in the world; although, of course, the amount of reserves available to an individual country at times also may be an important consideration. Growth in the volume of international transactions may render total reserves insufficient to facilitate the smooth functioning of the present type of international payments system. The adequacy of international liquidity, however, received little consideration until the mid-1960’s.

Adjustment Process. Reserve adequacy is linked closely to the adjustment process, that is, the process whereby imbalance is corrected and balance-of-payments equilibrium is restored. The reserve drain will be smaller the more promptly imbalance is corrected.

Pegged exchange rates practically eliminate the adjustment function of price in a free market. In a free market, an increase in supply relative to demand for a product results in a decline in price. The lower price tends to inhibit supply and stimulate demand, thereby restoring balance. This balancing function of price is

largely eliminated by the narrow band within which exchange rates are permitted to fluctuate.

The adjustment process contemplated in the present system involves actions to alter internal demand. Deficit countries should pursue restrictive monetary and fiscal policies to check rising demand and prices which should discourage imports and encourage exports. Surplus countries should follow expansionist policies which should bolster total demand, including import demand. Restrictive actions in deficit countries and expansionary policies in surplus countries, therefore, would gradually restore international balance.

Before going into the problems that have arisen in actual operation, it may be well to recapitulate. The present international monetary system embraces three main policies:

1. Pegged exchange rates to minimize the risk of rate fluctuations and thereby encourage international flows of goods, services, and capital.
2. Adequate reserves to conduct rate stabilization operations during periods of temporary balance-of-payments imbalance; and, in cases of more fundamental disequilibrium, to afford reasonable time for remedial action which may involve policies to alter levels of internal demand and prices.
3. A change in par value to remedy a fundamental disequilibrium, especially if excessively drastic monetary-fiscal actions would be required to alter internal cost-price structures to restore balance.

PROBLEMS IN OPERATION

Experience has revealed several defects in the international monetary system. Only the more

important ones are considered here to provide background for understanding steps that have been taken to strengthen the system. The problems relate primarily to two of the key features: reserves and the adjustment process.

Reserve Inadequacies. Two types of shortcomings converge with respect to international monetary reserves. First, individual countries may have inadequate reserves to meet sudden drains resulting from massive speculation against a currency or to meet a persistent drain arising from a very slow-moving adjustment process. Second, total free world reserves may become inadequate to meet the expanding reserve needs of a growing world economy.

Speculation in a currency may develop quickly in response to rumors of a political crisis, especially if a country has a persistent balance-of-payments problem. Massive speculation against a currency puts a severe strain on the exchange rate and reserves. Immediate access to additional reserves, therefore, is sometimes needed to defend against a sudden speculative raid. Because reserve drains, indeed, have been more sudden and massive at times than some countries had anticipated, a vehicle for prompt action is necessary if speculative attacks are to be checked before they gain more momentum.

Another shortcoming is the failure of the total supply of international monetary reserves to respond to an expanding world economy. The supply of gold, the largest component of reserves, tends to be perverse in its movements. Annual production is a small fraction of the total gold stock and tends to decline as costs of mining rise relative to the fixed price. Moreover, industrial and commercial uses of gold are rising: these other uses compete with monetary use of gold. Periodic crises of confidence in a

major currency, such as the dollar in 1960-1961, often stimulate speculation in gold and private hoarding of the metal on a large scale. In the absence of new discoveries, the free world supply of gold increases very slowly. The monetary stock of gold is likely to increase even more slowly, if at all.

The United States dollar is the next largest component of international monetary reserves, comprising about one-fourth of the free world total. The dollar has been the principal source of additional reserves in the past two decades as the persistent deficit in our balance of payments enlarged the reserves of foreign central banks and official institutions.

Recent experience illustrates clearly the inherent weakness of national currencies as a source of long-term reserve growth. Reserve currency countries, primarily the United States, would have to run balance-of-payments deficits in order to provide additional reserves for an expanding world economy. But a chronic deficit, if large, eventually undermines confidence in even the strongest currency, diminishes willingness of foreigners to hold it, and renders the currency vulnerable to massive speculative attacks.

Sluggish Adjustment Process. Reserve adequacy is intertwined closely with response of the adjustment process to basic disequilibria in the balance of payments. With prompt, effective response to remedy basic deficits and surpluses, relatively small national reserves would be adequate. Lack of any effective response would result in a continued flow of reserves from deficit to surplus countries; even huge reserves held by deficit countries would eventually become inadequate.

Automatic response to balance-of-payments

disequilibria has been largely eschewed. Exchange rates are confined within a narrow band, and reserve flows are usually not permitted to initiate corrective adjustments, that is, restraint on income-demand-prices in deficit countries and expansion in surplus countries. Normally, a nation implements monetary and fiscal policies to attain domestic economic objectives.

Experience has revealed three significant weaknesses of monetary-fiscal policies as an adjustment mechanism. First, authorities are usually reluctant to take prompt action, especially when such action conflicts with domestic economic objectives. The United States, with a balance-of-payments deficit which has persisted for over two decades, is a good illustration. Substantial deficits emerged in the latter part of the fifties and continued in the sixties. But periodic economic slack and a slow rate of economic growth inhibited effective use of monetary and fiscal restraints to remedy the deficit. Because of the budgetary process, it is particularly difficult to use fiscal policy to counteract balance-of-payments deficits and surpluses. Surplus countries have shown even more reluctance to use monetary-fiscal policies to stimulate expansion. They like to keep the larger cushion of reserves acquired, and stimulating expansion might generate a boom and inflation. Delay in initiating corrective actions may mean that drastic monetary-fiscal measures are required to restore balance-of-payments equilibrium.

A second factor impairing effectiveness of monetary-fiscal policies is growing rigidity of cost-price structures to softening demand. Ability of corporations to “administer” prices and strength of labor unions in negotiating wage rates have rendered prices and costs largely insensitive to moderate declines in demand.

Drastic restrictive actions may be necessary in deficit countries to bring cost-price structures into line with other countries, unless, of course, expansionary action is pursued in surplus countries or exchange rates are altered. The public in the United States is apparently unwilling to accept the results of strong deflationary actions—economic slack and unemployment—to remedy either a balance-of-payments deficit or domestic inflation.

A third development tending to impair effectiveness of indirect controls as a balance-of-payments tool is the growing importance of capital flows and Government payments in international transactions. Apparently, long-term capital flows are not particularly sensitive to interest rates and monetary-fiscal actions. Decisions to make long-term investments in foreign countries are determined by a number of considerations other than interest rates. Non-economic considerations determine Government economic aid and military expenditures in foreign countries. Consequently, moderate monetary-fiscal actions have relatively little influence on long-term foreign investment and Government payments abroad.

A change in par values, contemplated as another device for remedying a fundamental balance-of-payments disequilibrium, has also proved to be a sluggish method of adjustment. In practice, it has become almost a means of last resort. One serious inhibition has been national pride. Officials usually have been most reluctant to devalue deliberately their nation's currency because of the possibility of unpalatable political repercussions. Another difficulty has been the procedure for changing the par value of a currency. This action is supposed to be taken only after consultation with officials of

the International Monetary Fund.² Because of the time required to negotiate a carefully considered alteration in par value, it is almost impossible to avoid rumors that a change is being considered. And such rumors are likely to touch off massive speculation in the currency. These difficulties have caused officials to deny strongly that any change is being considered and to defer action as long as possible.

Direct controls is another method of bringing foreign payments into balance with foreign receipts. Deficit countries particularly have imposed restraints on foreign lending and investing; sometimes they have imposed broader controls to ration foreign payments in accordance with available receipts. Direct controls, however, are contrary to the philosophy of fostering a freer flow of international transactions among nations; consequently, the tendency in the United States is to delay imposition of such controls.

STEPS TO STRENGTHEN THE SYSTEM

Measures have been taken in recent years to shore up some of the shortcomings revealed by experience in the operation of the international monetary system.³

Official Operations in Foreign Exchange. Most foreign countries have long intervened in their foreign-exchange markets in order to maintain the rates on their currencies within the agreed limits. Until the early sixties, the United States limited its operations to buying and selling gold

with foreign official institutions at the fixed price of \$35 an ounce.

Official operations in foreign exchange is the first line of defense against speculative and other disruptive market forces in the present type of system. This mechanism was considerably strengthened when the United States decided to intervene in foreign-exchange markets as one method of helping defend the dollar which, because of our chronic balance-of-payments deficit, had become vulnerable to speculative attacks. The Treasury, through the Exchange Stabilization Fund established in 1934, initiated operations in foreign exchange in the spring of 1961. The Federal Reserve System, in order to supplement and reinforce the Treasury's operations, began operations in foreign exchange about a year later. Treasury-Federal Reserve operations are carefully coordinated, and the Federal Reserve Bank of New York, acting as agent for both the Treasury and the Federal Reserve System, executes all official foreign-exchange transactions.⁴

United States operations in foreign exchange were a logical outgrowth of the dominant role of the dollar in the international payments system.

Official intervention [of the United States] in the exchange market . . . arises from the desire of the free world nations to employ all the appropriate means to assure the smooth functioning of payments arrangements that is essential to the continued growth of international trade and finance.⁵

More specific objectives of Treasury-Federal

² Again, so long as the cumulative changes, up or down, are less than 10 per cent of the initial par value, a nation does not have to consult the IMF when altering the value of its currency. But it is doubtful that a change of less than 10 per cent would be effective in remedying even a moderate basic imbalance.

³ There is no attempt here to detail actions taken by the United States to remedy its balance of payments; the aim is to describe steps of significance in the operation of the international monetary system.

⁴ For an excellent analysis of U.S. operations, see Marilyn Trued, *United States Official Operations in the Foreign Exchange and Gold Markets*, U.S. Treasury Department, Washington, D.C., 1966. Also, for a periodic summary of these operations, see the *Federal Reserve Bulletin*.

⁵ Trued, *op. cit.*, p. 1

Reserve operations are to prevent disorderly conditions in the foreign-exchange market and sharply erratic movements of a disruptive nature in exchange rates and to avoid excessive outflows of short-term capital and gold.

Stabilization operations in foreign exchange require an available supply of foreign currencies, especially when the dollar is under pressure from a persistent balance-of-payments deficit. The deficit means that stabilization operations would afford few opportunities to buy and accumulate holdings of major foreign currencies.

Bolstering Reserves. Most of the steps taken to strengthen the international monetary system pertain to reserves. Experience emphasizes that reserve adequacy involves actual holdings of existing reserves as well as availability of additional reserves. Although there is no direct link between reserve need and the volume of world trade, some source of increase for reserves is necessary to meet the needs of an expanding world economy. Reserve need is associated more closely with how efficiently reserves are used and how promptly the adjustment process operates. One can logically expect, however, that a growing volume of international transactions will sooner or later create a need for larger international monetary reserves. Some reserve asset other than key currencies or gold will be needed for this purpose.

The International Monetary Fund recently made what is perhaps the most important change in world finance since Bretton Woods by establishing facilities for creation of a new international reserve asset to supplement gold and reserve currencies. This new reserve asset—special drawing rights (SDR's)—is sometimes referred to as “paper gold.” Participating member countries agree to accept SDR's as reserves

and in exchange for convertible currencies. The new reserve asset may be used by governments and central banks in making international settlements; it is not available for use by commercial banks and other private participants in international transactions.

The initial issue of SDR's was made early in 1970, with approximately \$3.4 billion allocated among participating members on the basis of their quotas in the IMF. The United States allocation was \$867 million. Present arrangements call for allocation of \$3 billion at the beginning of 1971 and another \$3 billion at the start of 1972. SDR's make it possible for the International Monetary Fund to create additional reserves in response to a growing volume of international transactions.

Several features of SDR's are significant. First, SDR's differ from IMF borrowings in several respects. They are allocated among all participating members, whereas borrowings initially enlarge the reserves of borrowing countries only. Because SDR's are a form of reserves rather than a form of credit, they are not, in principle at least, subject to repayment; however, average holdings of SDR's are required to be at least 30 per cent of a country's average cumulative allocations over a certain base period. Should holdings drop below this minimum, a country would have to “reconstitute” its holdings of SDR's before the end of the base period in order to restore the average-ratio requirement. The purpose of this reconstitution provision is to prevent exclusive reliance on SDR's in financing deficits and to encourage holding a part of monetary reserves in SDR's. Second, participating countries agree to provide convertible currency in exchange for SDR's and to hold SDR's (so long as it does not need to use them) until the aggregate amount is equal to three times

total allocations. Third, SDR's cannot be used merely for the purpose of altering the composition of reserve holdings, that is, exchanging SDR's for gold or a reserve currency. Fourth, SDR holdings in excess of the amount received on allocation yield a low rate of interest—a provision designed to add somewhat to their acceptability as a reserve asset.

The experiment with SDR's may solve the problem of reserve adequacy for long-term growth. SDR's can be created when there is general agreement that additional reserves are needed. Approval of 85 per cent of the voting power of IMF members is required. Provisions adopted are designed to protect holders and encourage use of SDR's; however, only time will tell whether the international community will actually accept them as readily as other reserve assets, such as gold and reserve currencies.

In addition to actual holdings of existing reserves, reserve adequacy also means the availability of additional reserves to defend against sudden and sometimes massive waves of speculation. For example, in May, 1969, rumors that the mark might be revalued upward touched off a \$4 billion inflow of funds into West Germany within 10 days. There was an inflow of \$2.5 billion in two days. The counterpart was large outflows and reserve losses in other countries, such as England and France. Reserve adequacy against such sudden and vast flows requires immediate access to substantial lines of credit. Prompt official action in foreign-exchange markets, in large volume if necessary, is essential to maintain confidence and forestall self-inflammatory speculation on a large scale. A technique developed by the Federal Reserve System to increase the availability of foreign currencies soon after foreign-exchange operations were instituted has become a major source

of liquidity that can be used to withstand speculative attacks.

Federal Reserve officials began negotiating a series of "swap agreements" with major foreign central banks in 1962. The initial step in these swaps is a standby credit in which each central bank agrees to exchange on request its own currency for the currency of the other country, up to a maximum amount for a certain period of time, usually 90 days. If standby credit is activated, the Federal Reserve credits the account of the foreign central bank with a given amount of dollars and in exchange receives a credit on the books of the foreign central bank for an equivalent amount of that country's currency. Simultaneously, both central banks agree to reverse the transaction at the end of the specified period at the same rate of exchange.

A substantial reserve of foreign currencies has been made immediately available under these swap arrangements. Swap agreements have been negotiated with 14 foreign central banks and the Bank of International Settlements for a total of over \$11 billion. Foreign currencies made available in this manner have not only been used in Federal Reserve operations to stabilize market rates of exchange, but also to absorb surplus dollars acquired by foreign official institutions in their support operations and which otherwise might have been used to buy gold from the U.S. Treasury.

Central bank cooperation has made available, at times, additional resources to defend against sudden speculative attacks on a currency. On occasion, central banks have mobilized, by telephone, credit pools of a billion dollars or more to assist a country threatened with a sudden run on its currency. Swap agreements and prompt mobilization of credit by central banks have materially strengthened reserves against sudden

short-term drains.

Measures have also been taken to increase reserves available for drains of longer duration. Resources of the International Monetary Fund, the primary source of intermediate-term credit (one to five years), have been increased from the original \$8 billion to \$21 billion. Another increase in resources of \$7.6 billion appears to be well on the way to final approval by member countries. If approved, IMF resources will be raised to nearly \$29 billion.

Another step was taken by the IMF a few years ago to bolster this second line of defense for currencies weakened by balance-of-payments deficits. Heavy drawings had left the IMF with only limited resources in some major currencies. A supplementary borrowing arrangement was adopted involving ten of the major industrial countries. Under this arrangement, the ten countries stand ready to lend up to specified maximum amounts of their currencies. The maximum amount for the United States is \$2 billion, and the total for the other nine countries is \$4 billion. The purpose of the arrangement is to create facilities whereby surplus countries in the Group of Ten gaining reserves can lend their currencies via the IMF to deficit countries in the Group reserve. Such loans to the Fund mature in five years, but can be repaid sooner if the borrowing country repays its drawing before maturity. A lending country experiencing a balance-of-payments problem can obtain prompt repayment from the Fund even though the loan has not matured.

Another limited source of intermediate-term credit, initiated by the United States, is the issue of nonmarketable Government obligations to foreign official institutions. The U.S. Treasury has issued such obligations to fund short-term indebtedness in foreign currency and to absorb

dollars accumulated in excess of quantities foreign official institutions desired to hold. Some of the issues have been denominated in foreign currencies, thereby eliminating risk of loss from dollar devaluation. This source of credit is available only to the extent surplus countries are willing to accept the obligations of the issuing country.

Improving Adjustment Process. There seems to be general recognition that the adjustment process often responds too slowly to fundamental disequilibria in the balance of payments. But thus far, remedying the situation has been approached almost entirely from the side of augmenting available reserves instead of making the adjustment process more responsive. A few steps have been taken around the fringes, however, that could facilitate the adjustment process.

International discussion and cooperation have developed substantially in the past decade or so. Central bankers meet monthly at Basle, Switzerland. These meetings provide a forum of discussion of international monetary problems and policies. There are regular meetings of committees established within the Organization for Economic Cooperation and Development, as well as meetings of the Group of Ten, comprising representatives of ten leading industrial members of the International Monetary Fund. Task forces are established to study specific problems. Meetings of these various groups provide forums for discussion and surveillance of national economies and monetary policies, especially on the relation of the latter to balance-of-payments problems. These discussions and surveillance focus attention not only on international cooperation, but also on national policies that are appropriate for the deficit and surplus countries.

International cooperation has made significant progress; however, to what extent the adjustment process has been accelerated is debatable. National self-interest, often viewed narrowly, continues to be the overriding influence in formulating national monetary and economic policies. Thus far, improving the adjustment process lingers in the discussion stage.

MAJOR PROPOSALS FOR FURTHER REFORM

Inherent weaknesses revealed in the present system, especially in the adjustment process, have led to proposals for less rigidity in exchange rates. The proposals are of two principal types: introduce more flexibility into the system of regulated rates; remove the pegs and allow exchange rates to fluctuate freely.⁶

More Rate Flexibility. Restoration of currency convertibility followed almost three decades marked by the chaotic disruptions of the Great Depression and World War II. Rigid exchange control became a way of life in most countries. It was logical that, with the return of convertibility, emphasis was on maintenance of established exchange rates. But as the aftermath of war was cleared away, the stage was set for economic growth and development. The pace was more rapid in some countries than in others. Varying rates of change sometimes helped create basic balance-of-payments problems and, as we have seen, the adjustment mechanism proved to be too rigid to solve the problems efficiently. Hence, proposals for greater rate flexibility have been offered so that the present system may better adapt to changing conditions.

One of the more common proposals is to widen the band within which foreign-exchange rates are permitted to fluctuate. For example, the present band of 1 per cent above and below par might be widened, say, to 2 or 3 per cent or perhaps more.

In theory at least, proposals for a wider band would permit exchange rates to play a somewhat larger role in effecting adjustments necessary to remove imbalances in international transactions. For instance, a deficit in our balance of payments would result in higher rates for foreign currencies. These higher rates would increase the expense of making payments abroad and reduce the cost to foreigners of making payments here. Payments abroad would be discouraged, while receipts from foreigners would be stimulated. Depreciation of the dollar in foreign-exchange markets would thus help correct the deficit.

In practice, however, the main advantage of a 2 or 3 per cent band is that it allows domestic economic policies somewhat more independence from international consideration. Wider fluctuations in exchange rates would relieve some of the pressure of imbalances on reserves and afford national authorities more leeway in using monetary-fiscal policies to achieve domestic goals. Moreover, market rates of exchange would respond promptly to developing imbalance.

Permitting market rates to fluctuate more widely would diminish, of course, some of the benefits of pegged rates. Increased risk from rate fluctuations might inhibit somewhat international transactions. And even the wider rate fluctuations proposed would not be of major assistance in correcting a fundamental imbalance, which is the real problem in the present system. Nor apparently would the limited rate

⁶ A small minority advocates return to a full gold standard, but this proposal apparently has little practical significance.

movements proposed provide much defense against speculative attack on a currency.

Another class of proposals for achieving greater rate flexibility pertains to par values. The aim is prompter adjustment of par values to conditions producing fundamental imbalances.

One suggestion is that authorities be less reluctant to use existing machinery to change the par values of currencies. More prompt adaptation of par values to basic shifts in balance-of-payments positions would enable exchange rates to play a larger role in the adjustment process. Implementation of this plan, however, encounters the serious difficulties already mentioned—national pride and maintaining secrecy while consultations with the IMF are under way.

Another suggestion is for a moving or “crawling peg” which would effect a gradual instead of a sudden, abrupt change in par value. For instance, in case of a chronic deficit, the par value of the nation’s currency might be gradually adjusted downward according to some formula, such as one-quarter per cent a month. In a year, this could result in a 3 per cent reduction in par value. Under this system, advocates contend that exchange rates would become a more effective tool for correcting fundamental imbalances, and short-run rate stability would be retained.

Possible benefits, however, may involve sacrifices. In addition to greater uncertainty as to future rates, gradual changes in par value according to formula could induce speculation. So modest a monthly change as one-quarter per cent also may be insufficient to correct a chronic deficit or surplus, except over a considerable period of time. Hence, there may be an inducement to speculate against further changes in par value and market rates.

Freely Fluctuating Rates. Considerable support has developed in recent years, almost solely

among academic economists, for removal of all pegs on exchange rates. The suggestion is to allow foreign-exchange rates to respond freely to shifting supply-demand relationships, thereby permitting rates to perform the function market price is supposed to accomplish in a free economy.

The principal advantage of freely moving exchange rates is that price would perform its basic function of helping maintain balance between market demand and supply. Exchange rates would respond automatically to emerging imbalance. An excess of foreign payments over receipts would push up the prices of foreign currencies here and depreciate the dollar in foreign-exchange markets abroad. Developing disequilibrium in a nation’s balance of payments would promptly initiate rate changes that would tend to correct the imbalance.

Advocates of unregulated exchange rates point to other advantages. The adjustment process would be speeded materially so that payments imbalances would be corrected more promptly. The pressure on reserves would be substantially reduced; reserve adequacy would not be so serious a problem. National cost-price structures would be largely insulated from each other because movement in exchange rates would bear the brunt of effecting adjustments in the flow of international transactions. By the same token, monetary and fiscal policies could be directed more toward achieving desired domestic economic objectives. Nor would it be necessary to use direct controls to achieve and maintain balance-of-payments equilibrium.

Finally, proponents of flexible exchange rates allege that adverse effects of freely fluctuating rates are often exaggerated. Substantial rate movements would occur only if there were corresponding shift in supply-demand forces; prompt

response of rates would tend to prevent large disparities from developing. Authorities could still intervene in foreign-exchange markets to mitigate or prevent disruptive and disorderly rate fluctuations. Furthermore, a large part of the uncertainty and risk of rate fluctuations could be eliminated by hedging in the forward market.

Critics of flexible exchange rates are not convinced of these advantages. Possibility of wide and erratic movements in exchange rates could inhibit international trade and capital flows. Unregulated rates might also induce destabilizing speculation. For instance, should a deficit weaken a currency in foreign-exchange markets, speculators might drive the rate still lower. Some critics allege that a system of flexible exchange rates would encourage inflation, because national authorities would be largely freed of the discipline of reserve flows and persistent balance-of-payments deficits. Moreover, international cooperation under a system of relatively fixed rates can do much to harmonize national economic policies and alleviate periodic conflicts between international and domestic economic objectives.

THE CRUCIAL ISSUES

Considerable progress has been made in recent years towards bolstering international monetary reserves to meet more effectively sudden speculative attacks against a currency; to tide a nation over short-term balance-of-payments deficits; and to provide reserves needed to support an expanding volume of free world international transactions. If the first experience with SDR's proves successful, facilities will exist for effecting long-term growth in world monetary reserves. The crucial problem which remains, and on which there has been little progress towards a solution, is improvement of the adjustment

process. Automatic adjustments to correct fundamental disequilibrium hardly function in the present system; positive actions have generally proved to be "too little and too late."

What, then, are the fundamental issues and choices confronting us? We may not like the consequences of either free foreign-exchange rates or positive actions to affect adjustments under a system of pegged rates, especially if such actions are in conflict with our domestic objectives. But our choice is limited. We can reject one, but not both.

Basically, there are two types of international monetary systems. In one, foreign-exchange rates are pegged; imbalances in international transactions produce reserve flows; and for adjustments to correct fundamental imbalances, primary reliance is on positive actions by national authorities to alter levels of demand, prices, and costs or to change par values of the currencies. The present system operates this way. In the other, exchange rates respond freely and promptly to market forces; the impact of disequilibrium on reserve holdings is small; and for effecting adjustments to restore equilibrium, market movements in exchange rates is the principal mechanism.

Both systems have defects; each yields unpalatable consequences at times. Pegged rates divert market pressures initially to reserves and periodically create gnawing problems of reserve adequacy. But a much more serious consequence is that correcting a fundamental imbalance requires positive actions to alter demand-price-cost structures or a change in par value of the currency. Effective control of any price requires regulation of some of the principal forces determining the price. Experience demonstrates strong reluctance either to initiate effective indirect or direct controls when inconsistent with desirable domestic policies or to change the par

value of a currency. The result has often been a delayed, slow-moving adjustment process to restore balance-of-payments equilibria. In a sense, sluggish adjustment is inherent in a system of pegged exchange rates; it is analogous to pegging the tail and letting the dog wag.

A system of unpegged rates has the undesirable consequences of possibly wide, erratic movements in market exchange rates. Rate fluctuations subject foreign traders and investors to an additional risk. A portion of the risk can be covered by hedging in the forward market, but the climate may still be less favorable to international business and financial activity than in a system of pegged exchange rates.

Analysis⁷ of these two extremes—a system of pegged versus a system of freely fluctuating exchange rates—highlights the basic choices confronting us. The undesirability of using controls to alter internal demand and prices or directly to regulate international trade and capital flows should be weighed against the adverse effects of freely floating rates. Inasmuch as direct controls are contrary to the goals of a freer exchange of goods and capital, the choice seems to be primarily between policies directed toward internal demand and prices, and flexible exchange rates.

Another development relevant to the choice confronting us is that indirect controls, such as monetary-fiscal policies are being blunted somewhat as instruments for correcting international imbalance. Growing rigidity of price-cost-wage structures to declining demand makes it difficult to use these policies effectively to remedy a fundamental imbalance. Restrictive actions may shrink import demand arising from an inflated economy; however, drastic restrictive actions are required to deflate an internal price-cost structure that is higher than those in other major industrial countries. Unwillingness to accept the

consequences of drastic restraint often delays and may even prevent effective use of monetary-fiscal actions. A second development, which also tends to impair effectiveness of monetary-fiscal measures, is the increasing importance of long-term capital and Government payments in our balance of payments. These categories of international transactions for the most part are not sensitive to monetary and fiscal policies.⁷

Market participants generally view freely fluctuating exchange rates with apprehension, particularly after over two decades of pegged rates. Some fear is understandable. But the protracted environment of pegged rates may lead us to exaggerate the difficulties inherent in flexible rates. Undoubtedly, the policy of supporting Government securities prices during and following World War II created among market participants an exaggerated idea of the difficulties of operating in an unsupported market. Participants in international transactions might adjust to unpegged foreign-exchange rates without the serious consequences many envision.

A practical first step toward improving the adjustment process might be some compromise between freely fluctuating exchange rates and the present system of pegged rates. For example, a logical initial experiment might be to establish some kind of crawling peg or a wider band within which market rates could fluctuate. Experience with gradual movements in exchange rates should provide useful information for deciding other steps that might be desirable—whether toward more flexibility in rates or some mechanism that would facilitate more prompt changes in par value to adjust to fundamental imbalances in internal demand-price-cost structures.

⁷ Neither would Government payments be sensitive for the most part to fluctuating exchange rates.

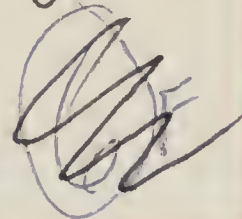
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By Fred R. Philod.

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